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ABSTRACT

This study examined teachers' use of professional time when not directly with students, describing alternative time use in Germany and Japan. The study involved 21 German, Japanese, and U.S. elementary schools. Researchers collected background information on teachers' professional lives and conducted case studies of teachers' daily work, examining traditional and innovative schools. This report presents study data in eight chapters: (1) Introduction; (2) The Structures of Elementary School Teaching in Three Countries: An Overview of Education Systems in the United States, Germany, and Japan; (3) Teachers' Required School Day in the U.S., Japan, and Germany: A Quantitative Look; (4) The Structure and Uses of Teachers' On-the-Clock Professional Time without Students; (5) Improving the Quality of On-the-Clock Professional Time; (6) Above and Beyond: Teachers' Work Off-the-Clock; (7) Teachers and Students: The Psychology of Time and Space; and (8) Summary. Overall, Japanese teachers have slightly more weekly planning time than U.S. teachers, with more sustained planning time blocks after school. German primary school days are shorter than U.S. primary school days. Teachers' planning and preparation occur at home. Older German and Japanese elementary students are taught by specialist teachers during some periods, with classroom teachers having other assignments during those periods. Planning time for U.S. teachers generally occurs when students go to specialist teachers. Innovative U.S. schools provide teachers with longer blocks of time and more collaborative planning time than do traditional schools. (SM)

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Trying To Beat The Clock:

Uses of Teacher Professional Time In Three Countries

1998

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USES OF TEACHER PROFESSIONAL TIME IN THREE COUNTRIES

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The success of qualitative research in schools is always dependent on complex scheduling arrangements and the cooperation and good will of the educational professionals who work in them. For this particular study, the logistics of data collection were compounded by the need to work in three countries and the need to complete school visits and interviews with teachers within a very narrow window of opportunity (a 4-month period in the winter and spring of 1996). The author is grateful to the teachers and administrators in U.S., German, and Japanese schools who were willing to accommodate our schedule and candidly share an insider's view of their professional lives. In deference to their privacy, we have not named the schools visited, but all of them can be proud of the educational groundwork that they are doing with young children.

The study benefited from a superb team of researchers representing three different organizations. Coordination could have been a problem. In actuality, it was not. Much of the credit for this goes to Mary Leighton, formerly of Policy Studies Associates (PSA) and now an elementary school principal in Washington, D.C., who kept all of us organized and on target. Other members of the PSA data collection team included David Goldstein, Sara Nathanson, and Katrina Waiters—excellent site visitors indeed. Sara and Katrina also prepared the extensive background paper on the basic parameters of the teaching profession in the United States. The fact that this report has a single author is exclusively due to the fact that peoples' lives move on. The author wishes David well in his resumed teaching career and Sara and Katrina great success in the field of law. Ben Laguerela and Kim Thomas of PSA produced the final report.

Of the nine U.S. case studies on which analyses in the study are based, five were prepared by PSA staff. The remaining four were the responsibility of the National Center for Restructuring Education, Schools, and Teaching (NCREST) at Teachers College, Columbia University. Linda Darling-Hammond, Director of NCREST, led this team which included graduate students Kemly McGregor and Debbie Sullivan. Thanks to them for their thoroughness and their insights.

Data collection in Germany and Japan was the responsibility of the Center for Human Growth and Development at the University of Michigan, under the able leadership of Harold Stevenson who is a long-time observer of schools in these countries. Drawing on his network of case study data collectors for the Third International Study of Science and Mathematics (TIMSS) as well as professional colleagues in the two countries, Mr. Stevenson organized an efficient and focused data collection effort. Linda Bailey, now a graduate student in linguistics and a fluent speaker of German, coordinated the school visits in Germany and prepared the background paper on the German education system. Douglas Trelfa, who is fluent in Japanese, assumed the same responsibilities for that country. After Mr. Trelfa moved on to a new position, Akane Zush stepped in to complete translation and preparation of the Japanese data for use in this report. She is a marvelous pinch hitter.

The very existence of this study is due to the persistence of Terry Dozier, a former national and South Carolina teacher of the year and currently special advisor to U.S. Secretary of Education Richard Riley. As organizer of the annual Goals 2000 Teachers Forum, Terry heard the message that teachers were sending about their time constraints and determined to investigate ideas that might be of help to them. She has been a critical friend of the study from beginning to end, helping to keep us targeted on the issues that concern U.S. teachers most.

Other staff of the U.S. Department of Education have also made valuable contributions to the study and to the quality of this report. Elizabeth Eisner served as the government's project officer and has devoted many hours to thinking about the issues addressed and reviewing study products. We are grateful for her attention to detail, her analytic acumen, and her supportiveness at all stages of the study. Our work also benefited from periodic reviews by Lenore Garcia, Lois Peak, Ricky Takai, and Barbara Coates.

Finally, we would like to thank the Technical Review Group assembled for this study. Howard Nelson of the American Federation of Teachers, Allen Odden of the University of Wisconsin, and Sylvia Seidel of the National Education Association provided the study team with helpful comments and advice, particularly during the design and analysis stages of the study.

This report was developed by the Project Director, Nancy Adelman, who conducted the work while serving as a Managing Director of Policy Studies Associates, Inc. She is currently a Senior Research Associate at SRI International.

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Executive Summary

Context for the Study

The current educational reform context in the United States makes heavy demands on teachers. Amid national, state, and local concerns about unacceptably low student achievement, teachers are called on to improve student outcomes by revising and enhancing curriculum, learning new instructional strategies, and fundamentally reorganizing school structures and cultures. This is an ambitious agenda that is struggling to make headway, in large part because teachers are being asked to reinvent the airplane while it is in flight.

Teachers in the United States often say that one of their biggest constraints in educational reform is the lack of time for professional activities other than direct instruction of students. In their time at school when they are not engaged in direct instruction, they must accomplish a host of chores to ensure that their classrooms run smoothly. Often, these chores carry over into their evening and weekend hours. They find few, if any, significant blocks of time during the official school week to address the more challenging aspects of educational change such as revamping curricula, devising new forms of student assessment in the classroom, working collaboratively, or learning to govern school policies and resources. They, as well as administrators and policymakers, are hungry for ideas about how to find and use time more effectively and efficiently.

Purpose of the Study

Working in a small number of schools, the study team documented and compared variations on the quantity, structure, and uses of teachers' overall professional time in the United States, Germany, and Japan. The specific focus was on professional time when teachers are *not* in direct contact with students—when that time occurs, how it is created, its functionality, its normative use, and, in the United States, alternatives to the norm. The study's ultimate purpose is to describe and analyze alternative cultures of time use that might be helpful to U.S. teachers, administrators, and policymakers as they continue on the road to school improvement.

Study Design

This report is based on two kinds of data sources: (1) background papers about teachers' professional lives in the United States, Germany, and Japan and (2) case studies of teachers' day-to-day work lives in a small number of schools in each country. The background papers were based on previous research (including surveys of nationally representative samples of teachers), policy documents, and interviews with policymakers. Researchers responsible for preparing the background papers on Germany and Japan, for overseeing school visits and interviews, and for collecting and interpreting school schedules were fluent in the native languages of those countries.

The study involved a total of 21 elementary schools: six each in Germany and Japan and nine in the United States. The German schools are located in three different states and the Japanese schools

in three different prefectures. The U.S. schools, located in six states across the country, include six "innovative" schools, selected because of their unusually large quantities of paid planning for teachers and their reputations for using the time innovatively. In three of these six sites, researchers also developed a case study of a school identified by district officials as "typical" or "traditional" with regard to the amount of paid planning time for teachers. These schools had at least average student outcomes and a good local reputation but had no particular school improvement agenda that involved changing either teachers' or students' schedules. German and Japanese schools are representative only of schools that were willing to cooperate with interviewers. Analyses of time use and schedules in all of the schools focused on fourth grade, the highest grade taught in German primary schools.

This research design permits the study team to present comparative findings about (1) the traditional amount, use, and structure of teachers' professional time in the three countries and (2) ways in which some U.S. schools are trying to alter the tradition to make professional time—both instructional and non-instructional—more effective and the culture of the school more conducive to teaching and learning. Since it is based on such a limited sample, the report offers ideas and suggestions for U.S. practitioners but does not draw definitive conclusions.

Key Findings about Potential Time for Teachers to Plan and Prepare

The following findings are the key findings from this study of a small sample of schools in each country:

- **Compared to the teachers in the U.S. case study schools, teachers in the Japanese schools have only a little more planning time each week--an average of 1.25 hours more. Although the Japanese teachers do not have significantly larger amounts of planning time, they have more sustained blocks of planning time. This time occurs after students have left school for the day, so teachers are available for collaborative and individual planning.**

  - This difference in the structure of planning time appears to be due to two key factors: (1) a relatively longer work day (by 1 to 2 hours) than U.S. teachers; and (2) variable student dismissal times over the course of the week. On at least one day each week students are dismissed early so that teachers have several hours of planning time after the students had left the school building.

  - Much of Japanese teachers' after school planning time is devoted to meetings of various kinds--grade level, subject area, and school-wide committees. Some of this time is devoted to individual planning and research projects.

- **For primary school (*Grundschule*) teachers and students in Germany, the school day is short by U.S. standards, ending no later than 1:00 p,m.. German teachers do virtually all of their planning and preparation in their own homes.**

  - The cultural expectation (as articulated in government documents) is that a teacher will spend about as much time planning and preparing as she does instructing.

- Interviews with some German teachers from the six schools in this study revealed that the amount of time that German teachers devote to planning and preparing lessons often depends on their experience—less experienced teachers generally spend more time planning.

- At least in the six German schools visited for this study there is little emphasis on professional collaboration as whole school improvement. Therefore, the vast majority of after school planning time is spent as individual preparation time.

- **Older elementary school children in Germany and Japan are taught by specialist teachers during some periods. However, based on the case study schools, this does not create important planning time for their classroom teachers, who usually have other assignments during these periods.**

- **The principal method of obtaining on-the-clock planning time for regular classroom teachers in the U.S. case study schools is by assigning students to specialist teachers (typically art, music, and physical education). In the traditional schools, this strategy yields a daily or almost daily 40- to 45-minute period of time without students for classroom teachers.** Teachers use this time primarily for routine chores—copying, telephone calls, grading papers.

- **The U.S. innovative case study schools provide teachers with longer blocks of time and more collaborative planning time than do the U.S. traditional schools. The innovative schools employ two main strategies to create this time:**

  - Some U.S. schools are using creative scheduling to make the periods of time created by specialists more functional—putting two planning periods together to create a longer block, putting a planning period next to the lunch period for the same purpose, scheduling teams of teachers for planning periods at the same time.

  - Some U.S. schools are beginning to use a variable student schedule to obtain a substantial block of common planning time for all faculty on one afternoon per week. This practice is called "banking" time.

Traditional Allocations of Teachers' Time in the Three Countries

Traditions of educational time in the United States, Germany, and Japan are rooted in a variety of complex policy and cultural contexts for the teaching profession. Key cultural differences in the teaching professions in the United States, Germany, and Japan include the following:

- German schools are staffed with a mix of full-time and part-time teachers to a much greater extent than schools in the United States and Japan.

- The culture of teaching in Japan involves a full partnership with the family. Teachers are to some extent accountable for their students' behavior and well-being both inside and outside of official school hours.

The overall time that teachers are required to be at school and the distribution of teachers' time with and without students are quite different in the three countries. However, there is also substantial within-country variation, particularly in the United States and Japan. **The following generalizations hold true for the small sample of traditional schools in each country.**

The Length of the Required School Day for Teachers and Students

- Based on the 21 schools in this study, the required school day for teachers is longest in Japan (8 to 9 hours) and shortest in Germany (5 to 5.5 hours). In the United States, teachers' required day is 7 to 8 hours long.

- The school day for students is variable over the course of a week in Japan and Germany. The youngest students (first and second graders) go home earlier than older students. In Japan, all students go home early on at least one day per week. In the United States, student dismissal time is typically the same on all days of the week.

- Quantity of time factors proved to be less important than quality of time factors in the cross-country comparisons and in comparing traditional and innovative U.S. schools.

Teachers' Required Time With Students

- The analysis of the schedules of the case study schools bears out the findings of other studies that U.S. teachers devote more time to direct teacher-student academic instruction than do teachers in Japan and Germany. Compared to the U.S. teachers, Japanese teachers spend more of their working hours with students but *less* time engaged in the academic instruction of students. They eat lunch with students and stay with students during clean-up drills: this time provides the teachers with an opportunity to instill social and cultural values.

- In the case study schools, U.S. and German teachers are similar in the proportion of total time with students that is allocated to academic instruction (about 70 percent). However, the U.S. teachers and students devote more daily time to academic instruction.

- Teachers in the Japanese case study schools spend, on average, about 50 percent of their total required time on the academic instruction of students.

Teachers Required Time Without Responsibility for Students

- This category of time represents potential on-the-clock planning and preparation time for teachers. Teachers in the Japanese case study schools have the largest amount of their required work time without responsibility for students. Teachers in the German schools have the least. The amount of student-free time is variable in U.S. case study schools.

- While some U.S. teachers have fewer hours of on-the-clock time potentially available for planning and preparation than do many Japanese teachers, teachers in some U.S. schools—including schools in both the traditional and innovative groups in this study—have about the same proportion of total required time for this purpose (roughly 30 percent) as Japanese teachers.

- German teachers have very little of this kind of time during the required school day. As noted earlier, the German tradition is for teachers to go home shortly after students do at 1:00 p.m., with an expectation that they will plan and prepare at home for approximately the same amount of time that they teach.

The Structure and Uses of Teachers' On-the-Clock Time Without Students

This category of teachers' time was the prime focus of the study. The issue is not just the quantity or proportion of time potentially available for planning and preparation purposes but also the quality of the time—when it occurs, the mechanisms that create it, the duration of segments, and what it can reasonably be used for. The German schools did not contribute much to this analysis since on-the-clock time without students in that country is so limited.

U.S. Schools

The total amount of planning and preparation time is an aggregate of shorter and longer blocks of time derived from before and after school time, duty-free lunches and recesses, and contractual planning periods. The nine U.S. schools varied in the configuration of this time and in the purposes for which they used it.

- As noted earlier, in traditional U.S. schools, the longest segments of on-the-clock planning and preparation time are 40- to 45-minute periods when students are with specialist teachers for music, art, and physical education. Other segments without students are 15 to 30 minutes long. Teachers' required school day generally begins 15 to 30 minutes before students arrive and ends 15 to 30 minutes after students leave.

- In the U.S. elementary schools, shorter blocks of time, including an isolated period when students are with a specialist teacher, are generally used for routine tasks that keep the school day rolling. They are not used for activities related to a school improvement plan.

- As noted earlier, some innovative U.S. schools make special efforts to at least sometimes schedule periods when students are with specialist teachers back-to-back or adjacent to a duty-free lunch to create sustained blocks of time without students. Some use scheduling magic to create joint blocks of planning and preparation time for teaching teams or teachers at the same grade level.

  Finally, three of the study's innovative U.S. schools add student and teacher time to the school day on four days of the week to allow early student dismissal on the fifth day—a strategy referred to as "banking" time. This is time available to all the teachers in the school and is explicitly collaborative on most occasions.

- Unless a time segment is explicitly designated as joint or collaborative planning time for a specific group, most teachers in the U.S. case study schools work alone or with one other teacher.

Japanese Schools

Examination of schedules in the six Japanese case study schools indicated that Japanese teachers typically must be at school 10 or 15 minutes before students arrive and have two "long" breaks of 20 minutes or so during the student school day. They also sometimes have a free period when older students (fourth through sixth graders) are with a specialist teacher or younger ones go home early. However, these periods are often devoted to some schoolwide responsibility rather than to planning and preparation *per se*.

- As noted earlier, the bulk of the Japanese teachers' planning time occurs after students are dismissed. The duration of this time varies from day to day. On at least one day, it is several hours long.

- As other studies have emphasized, Japanese teachers in the case study schools have a common work room where they spend some of their time between classes after school.

- Japanese teachers use breaks during the school day when students are present for routine tasks in much the same way that the U.S. teachers use duty-free recesses or lunches and isolated periods when students are with specialist teachers.

Learning from the U.S. Innovative Schools: A Focus on Time

The traditional schools in the three countries examined in this study had not specifically focused on issues of professional time use. The innovative schools in the United States had. They are, therefore, a source of information on what can happen when educators zero in on time as a variable that they can manipulate and mold to support school improvement goals.

- The U.S. "innovative" case study schools do not provide significantly larger chunks of planning time than do the U.S. "traditional" schools. Rather, they provide less fragmented planning time—longer, more sustained blocks of time for planning. The innovative schools have reorganized schedules and, in some cases, staffing in order to provide teachers with longer, uninterrupted periods of planning time.

Based on cross-site analyses, five dimensions of structuring and using time appear to be correlated with positive educational climates in the innovative schools:

- School and classroom-level control over the use of time;
- Day-to-day flexibility in the use of time and other resources;
- A balance between the time needs of the individual teacher and the needs of the team or school staff;
- A culture of professionalism where teachers are trusted to make the best use of time; and
- A focus on students, ensuring that all professional time is geared to improving learning outcomes.

Teachers' Work Beyond the Clock

Teachers in the United States, Germany, and Japan all reported spending many hours on their work beyond those that they put in during the required school day, week, and year. Teaching is regarded as a profession in all three countries, and most teachers put in the hours that are required to do their jobs right—however long it takes.

Because their on-the-clock days are longer and their on and off-the-clock responsibilities at school and district levels more structured, U.S. and Japanese teachers are more apt to perceive that their jobs involve time pressures that affect their personal lives. Interviews at the case study schools revealed the following:

- Most of the U.S. and Japanese teachers reported working at school at least an hour or so beyond the official end of their work day and then spending more time on preparation in the evening or early in the morning. They also reported working on the weekends and during vacation periods.

- According to many interviewees, Japanese teachers rarely use many of the 20 vacation days to which they are entitled.

- German teachers tend to think of time pressures and the intensity of their work beyond the school day in terms of periods in the year when there are extra tasks to be completed (e.g., report cards, assignment of fourth graders to fifth-grade tracks).

- The amount of off-the-clock time put in is often related to the age and stage of the teacher's career. Newer teachers work longer hours. Teachers with children of their own can commit less time to the job.

Meetings are a fact of life for teachers. Even in Germany, where there is relatively less activity around whole-school improvement, there are certain kinds of staff meetings and required events that hold teachers at school longer than usual. Teachers in the Japanese case study schools seem to have after school meetings of one kind or another almost every day. One teacher who felt that there are too many meetings noted, "[A] factor in this may be that doing things together is the Japanese way."

Professional development activities are a part of the culture of teaching in all three countries, although the motivation for participation varies from country to country. Continuing education or professional development events may actually occur either on or off the clock. Some U.S. schools have traditions of fairly extensive release time during the school day so that teachers can participate in workshops and other kinds of professional development events. When this happens, a substitute teacher is hired to cover the class. There is no substitution of this type in Germany and Japan. When a teacher is absent, for whatever reason, administrators or teachers without regular classroom assignments act as the replacement. Sometimes classes must be doubled up. German and Japanese teachers are thus more reluctant to participate in on-the-clock continuing education activities that result in an extra burden on their colleagues.

- In Japan, all teachers participate in intensive professional development during their first year of teaching and take required refresher classes every fifth year thereafter.

- Two motivations drive participation in professional growth activities in Japan: self-improvement and collegiality. Many Japanese teachers seem to participate in informal study or research groups related to curriculum and instruction. Many teachers also enroll in classes such as calligraphy and Japanese culture. Sometimes classes such as first aid are offered at the school and are required of all faculty.

- U.S. teachers often participate in professional development in order to bring ideas or skills back to their colleagues or to further the goals of a school improvement plan. Educational uses of technology are a much stronger continuing education theme in the United States than in the other two countries.

- When they participate in continuing education, German teachers in the case study schools seem to be primarily motivated by self-improvement goals. The content of

workshops and classes mentioned by German teachers (e.g., meditation) is less academically oriented than in the United States and Japan.

Class Size and Staffing Patterns

Some of the time pressures that teachers perceive are related to the number of students for whom they are responsible. As a Japanese teacher noted, with 39 students in her class, it takes a half hour to hang up their drawings. Universally, teachers' wish lists include smaller classes.

- Among the Japanese schools in this study, the average class size is 34. Average class size in both the U.S. and German schools is 24. Many teachers think that 20 students would be ideal. Many of the Japanese teachers would settle for 30.

Some researchers in the United States are currently suggesting that educational outcomes for students could be improved by assigning specialized instructional personnel and administrators to regular classrooms, thus reducing class size and focusing resources directly on academic instruction. They base their recommendation, in part, on cross-national comparisons.

- In the German case study schools, all professional staff are teachers. Administrative tasks are undertaken by master teachers who teach part-time.

- U.S. and Japanese elementary schools in the study have one or two full-time administrators.

- The U.S. elementary schools in this study have far more other instructional personnel who are not regular classroom teachers (an average of 21) than the German and Japanese schools, with averages of six and four respectively.

- Some of the other instructional personnel in U.S. schools (e.g., paraprofessionals, AmeriCorps members) are relatively inexpensive and highly valued by teachers. They accomplish routine tasks that would otherwise occupy teachers' time. Their presence often allows more individualization of instruction.

Assigning more certified professionals to classroom duty is a decision that schools will have to grapple with on an individual basis. One innovative school in this study did so, using its site-based decision-making authority to eliminate the traditional roles of teacher specialists and special education teachers. All teachers are now classroom teachers, with an average class size of 21. One trade off was the elimination of a daily planning period. Later in its restructuring effort, this school gained community support for "banking" time to create an extensive block of planning time on one afternoon per week.

Eliminating traditional roles is not the only way to create smaller instructional groups, however. Another innovative U.S. school is organized in teams, with a special education teacher assigned to each team. The school retains its specialist teachers, but their curricula are far more integrated with regular classroom instruction than the norm. Classroom teachers and specialists also

have devised flexible scheduling strategies that allow all teachers to work with large groups, small groups, and individual students as the situation dictates.

Chapter 1

Introduction

This study of the structure and use of teachers' professional time is a direct outcome of concerns expressed at the first Goals 2000 Teacher Forum in November 1993. Given the opportunity to talk freely with peers and policymakers about the barriers to and the supports they need for broad-based educational reform, participating teachers consistently identified the lack of time as a major obstacle to achieving the National Education Goals. Although studies show that American teachers work about 25 percent longer than the weekly average of 35 hours that their contracts specify (National Education Association, 1992), teachers at the forum said they were continually hard pressed to keep pace with all that is required of them. This is particularly true in an era of educational reform that is introducing ambitious new content and student performance standards, new instructional strategies so that students can achieve those high standards, and new roles for teachers in school governance. Given these changes in their profession, teachers are again becoming learners themselves. Where will the time to learn come from?

This study documents the structure of teachers' professional time in a small group of U.S. elementary schools and compares the findings to those from a small number of schools that serve the same age groups in Germany and Japan. Previous research suggests that in both of these latter countries the proportion of total professional time that teachers devote to direct student contact may be lower than is typical in the United States.

In looking at the issue of teachers' time, the study has four goals. These are to:

1. Describe and compare the traditional work schedules and responsibilities of U.S. elementary school teachers with the traditional work lives of teachers in Germany and Japan, as defined by a small number of schools in each country that are not necessarily nationally representative samples.

2. Describe the work lives of teachers in a set of innovative U.S. elementary schools that have in some way restructured time and compare them to the professional lives of teachers in U.S. schools that organize and allocate time more traditionally.

3. Identify promising strategies that U.S. educators and policymakers might consider in providing elementary school teachers with more balance between instructional and noninstructional time during the official school day.

4. Assess the tradeoffs, resource implications, and impacts on students of restructuring elementary school teachers' professional time to allow them more opportunity for noninstructional duties such as planning, interacting with colleagues, contacting parents, and attending to their own professional development during the official school day.

The Key Research Questions

Two overarching research questions guided this study of the structure of teachers' professional time:

- What strategies might U.S. education professionals and policymakers consider to reallocate teachers' professional time as part of an overall reform strategy for improving educational outcomes for all students?

- If teachers' work is understood in new or different ways, what are the policy and resource implications for schools, school districts, and teachers' unions?

Answering these questions involved exploring several related subtopics. These included:

1. The social, economic, and historical context of teacher responsibilities, teacher time, and student time in the three countries studied;

2. The normative role of a teacher in a specific culture;

3. The allocation of teachers' time during the official school day or contractual day;

4. Teachers' work-related activities beyond the official school day or contractual day;

5. Teachers' perceptions about the match between role expectations and professional time allocations;

6. The school day experienced by students; and

7. Staffing patterns in the study schools.

These topics provided the structure for the study design.

The Study Design

This study was conducted by a research partnership made up of Policy Studies Associates (PSA), the National Center for Restructuring Education, Schools, and Teaching (NCREST) at Teachers College, Columbia University, and the Center for Human Growth and Development at the University of Michigan. The study design consisted of two data collection components: (1) background papers on

the work schedules and responsibilities of teachers in the United States, Germany, and Japan, informed by a review of previous research, policy documents, and interviews with policymakers at appropriate levels of the education systems and (2) case studies of teachers' work schedules and responsibilities in a limited number of elementary schools in each country.

The Center for Human Growth and Development took responsibility for collecting data in Germany and Japan, drawing on a network of researchers experienced in conducting international case studies and familiar with the appropriate documents for preparing background papers. These researchers conducted six case studies in each country—two in each of three states (Germany) or prefectures (Japan). It is important to note, however, that the school samples in Germany and Japan only represent schools that allowed outsiders to interview teachers and sometimes briefly tour the school. The study team made no attempt to compare these schools with other schools in their country in terms of the quality of education they offer or the representativeness of their schedules. The researchers conducted all interviews in the native language of the country and later translated them into English.

NCREST and PSA shared responsibility for collecting data for the nine U.S. case studies. These nine schools fall into two groups. Six are innovative elementary schools that have significantly restructured time and resources in ways that change the school experience for teachers and students. One primary criterion guided the selection of these innovative schools. This was evidence of larger than average amounts of planning time for teachers, with planning time defined as time within the official school day and week when teachers do not have direct responsibility for students. Figures on average time were derived from national survey data collected by the National Education Association. The other three elementary schools are more traditional, with "traditional" in this case referring only to teachers' use of time. They are located within the same districts as three of the six innovative schools. District officials called them "typical" schools, with at least average student outcomes and good reputations locally[1].

Researchers' field notes from these 21 schools in three countries constitute the raw data for this report. Quantitative analyses of time allocations at each school are uniformly based on the school day and week of fourth graders, the oldest children in Germany's equivalent of elementary school. In addition to providing information about student and teacher schedules and staffing structures, the field notes are a source of rich descriptive and anecdotal information from interviews with individual teachers and school administrators.

Organization of the Report

This report presents findings and highlights similarities and differences in the uses of teachers' professional time both between and within the three countries visited. *The number of schools in this study is clearly very limited, and schools were not selected to represent all schools in a national, state, or local context*. Readers should consider the report a source of ideas that might be adapted to their own contexts.

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[1] "Traditional" and "typical" are terms used frequently and interchangeably in this report, but at no time should they be construed to mean that we believe our tiny sample of schools is representative of all schools in a country.

The organization of this report is straightforward. Chapter 2 provides background information on the policies and traditions that govern elementary school education in the United States, Germany, and Japan. Chapter 3 quantitatively analyzes and compares teacher and student schedules in a small number of schools in each country, distinguishing between teachers' time in direct contact with students and time when teachers are required to be at school but may be attending to other professional duties. Chapter 4 continues the comparison of traditional practices among the three countries, zeroing in on how planning and preparation time is structured and used. Chapter 5 follows with discussion of the alternatives to traditional time structures adopted by six U.S. schools. These schools were selected for this study precisely for this purpose. Chapter 6 reports on what teachers said about work that they do "off-the-clock"—that is, after the end of their required school day, on weekends, and during vacations. Chapter 7 examines a perennial educational issue—class size, its relationship to teachers' perceptions of time pressures, and new ideas about school staffing patterns that some U.S. schools are introducing to relieve those pressures. Finally, Chapter 8 sums up the lessons learned from this study.

Chapter 2

The Structures of Elementary School Teaching in Three Countries

While it is fair to say that the goals of elementary school education—namely, basic literacy, basic numeracy, and socialization—are universal, the structures and norms of education systems vary substantially among nations. This chapter describes, in a broad stroke, the elementary education systems in the United States, Germany, and Japan, paying particular attention to the policies and traditions that govern teachers' professional time. The purpose of the chapter is to present some generalizable information about the three education systems as a backdrop for later discussions of school-specific variations on the use of time.

The broad characterizations of education systems are primarily based on unpublished, country-specific monographs prepared by three of the study's team members prior to site selection and fieldwork. The writers culled policy and statistical documents, previous research, and descriptive materials developed by departments or ministries of education at either state or national levels for their information. Insights gained from interviews and fieldwork about policies that influence all or most teachers or public perceptions of the teaching profession are incorporated into the present discussion as appropriate.

An Overview of Education Systems in the United States, Germany, and Japan

The United States and Germany share a federal model of government where states (50 in the United States, 16 in Germany) have the primary legal and political responsibility for making an education available to the public. German states, however, have stronger control over classroom level matters such as curriculum; in the United States, this is a local prerogative. In contrast, Japan has a national system of education with a ministry of education (called *Monbusho*) that establishes policies governing all schools in the country. In all three countries, however, tradition puts certain policies in the hands of the local community. A comparison of governmental policy authority over curriculum and performance standards, class size, time structures, source of education funding, and other policy issues appears in Exhibit 1.

Curriculum and Standards

In Japan, *Monbusho* sets the curriculum for all students, conducts workshops to ensure that teachers understand what they must teach, and approves textbooks to ensure that they adequately deliver the curriculum. When *Monbusho* changes the curriculum or approved texts, local education commissions are responsible for adapting local plans, procedures, and textbook adoptions to fit the new circumstances. Standardized examinations based on the official curriculum govern entrance to high schools and universities of greater or lesser selectivity.

Exhibit 1

Level of Government Responsible for Selected Education Policies in Japan, Germany, and the United States

Policy	Level of Government		
	National	State	Local
Curriculum content standards	Japan	Germany, U.S.	U.S.
Performance standards	Japan	Germany, U.S.	U.S.
Curriculum content	Japan	Germany[1]	U.S.
Maximum class size	Japan	Germany	U.S.[2]
Length of school day			Japan, U.S.,
Length of school week	Japan	Germany	Germany
Length of school year	Japan	Germany, U.S.[3]	U.S.
			U.S.
Principal source of education funding	Japan	Germany U.S. (22 states)[4]	U.S.(21 states)[4]
Hiring and assigning teachers		Germany	
Tenure decisions[5]		Germany	Japan, U.S.
Professional development	Japan	Germany	U.S. Japan, U.S.

[1] Federal-level agreement on minimum curriculum requirements.
[2] In 1996, the state of California set the maximum class size for grades K-3 at 20 students statewide, and other states may follow suit. Traditionally, however, class size mandates are a local prerogative in the U.S.
[3] States set minimum school year. Localities may exceed the minimum.
[4] Source: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1995*. In seven states, education funding is shared equally between the state and localities.
[5] Japanese teachers are not tenured in the sense used here. They qualify to teach by examination. However, once hired by a district and assuming satisfactory performance, they may teach in one jurisdiction for their entire professional lives, rotating among schools about every 3-7 years.

In Germany, curriculum guidelines and performance standards are the primary responsibility of the state. The federal government provides some oversight to ensure that all states meet certain minimum standards. Teachers, however, have considerable latitude in choosing course content, instructional methods, and materials.

Individual states in the United States exert varied levels of control over curriculum. Some, such as California (until recently) and Texas, retain considerable curricular authority by governing textbook adoptions and mandating curriculum frameworks that spell out the content that schools are to teach. States are also increasingly setting performance standards. Many other states, however, hold

strong traditions of local control of education. In some local control states, state departments of education are nonetheless proactive, producing models of content and performance standards for school districts to adopt or adapt at their discretion. A few states provide no guidance at all on curriculum, leaving all decision making (including about high school graduation requirements) to local policymakers.

Student Time in School

Monbusho establishes the length of the school year and week in Japan. A recent policy change eliminated two half-day Saturday sessions per month, thus reducing the school year from 240 days to 228 days. While national policy governs the amount of time that students at various grade levels must attend school each week, local schools set their own daily schedules. Each school in this study's small sample is unique in this regard. The fact that there is greater day-to-day variability in the school day in Japan than in the United States has implications for teacher planning time, as becomes clear in Chapter 3.

In Germany, the state sets policy on the amount of time that students must attend school weekly and annually. In most states, the school year is 188 days. Student time in school varies by age. First and second graders attend school for less time each week than do third and fourth graders, for example. Within these state guidelines, local districts may decide whether to convene school on five or six days per week. All German schools in this study operate on a five-day week. By national tradition, elementary school children (grades 1-4) have very short school days that end no later than 1:00 p.m. and earlier if their school is on a six-day week. This schedule contains assumptions about teachers' time, discussed in more depth later in this chapter, that are quite different from those in the United States.

In the United States, all 50 states mandate a minimum number of days per year that students must attend school, generally 175 to 185 days. Local districts may opt for more days and have policy authority over the configuration of the school week and day. A current trend is to devolve authority over weekly and daily time structures to the school level.

Teachers' Status and Professional Development

Policies with regard to teachers' status and professional development are primarily a state affair in Germany and a local responsibility in the United States. In Japan, the national government sets standards for local policymakers to apply.

In Germany, responsibility for hiring, promoting, distributing, paying, and transferring school personnel rests with state governments, as implemented through district-based school supervisors. School supervisors serve as liaisons between the state and the local education authority. The state also regulates teacher training programs. These are generally about five to six years long, with an academic phase of six to eight semesters and a practical phase of 18 to 24 months during which teacher candidates receive a modest salary. Both phases end with an examination, and successful completion leads to certification. The new teacher then applies to the state for a position and, if hired, enters a

three-year probationary period. Some states require newly certified teachers to spend one or two years in the state substitute teaching pool. Tenure follows probation.

In the United States, state policies govern the structure of teacher preparation programs that lead to certification. All states require teachers to hold a bachelor's degree. Some states stipulate that teachers must earn a master's degree within a certain period of time. Until then, their certification is probationary in a sense. A few states require a master's degree for initial certification. Once new teachers are credentialed, virtually all policies governing hiring, promotion, and pay schedules are local responsibilities.

Japanese teachers receive most of their preparation in four-year teacher colleges accredited by *Monbusho*. The practical phase of teacher preparation (student teaching) is very brief—three or four weeks at the elementary school level and less at the secondary level. At the completion of their college program, new teachers earn a certificate from a prefectural board of education where the college is located but must then pass an examination in the prefecture where they wish to be employed. The results of the exam are valid only for one year; teachers who are not hired during that period must retake the test in order to apply again the following year. New teachers receive one year of on-the-job training that typically includes about two days per week of school-based mentoring and instruction and one day per week of district-level activities. Status as a regular teacher follows the induction year, but novice teachers in Japan continue to be mentored by their more experienced colleagues.

Policy responsibility for professional development or continuing education also differs in the three countries. In Germany, teachers' contracts require them to participate in continuing education, but this is broadly defined to include activities such as professional reading. All states sponsor continuing education institutes that are separate from continuing education programs offered by other institutions. Some states require teachers to periodically attend. A continuing education institute might offer 15 to 20 two-day courses in any given month, many of them taught by experienced teachers from state schools. Courses leading to promotion in the educational hierarchy are differentiated from continuing education courses. In addition to the state's continuing education offerings, local schools may organize professional development events for their faculties.

In Japan, most professional development activities are local, although *Monbusho* sponsors workshops, seminars, and courses for administrators and experienced teachers with managerial responsibilities and organizes selective study-abroad programs for about 5,000 teachers each year. For the average teacher, however, continuing education means attending occasional district workshops (*kenshuu*), collaborating with colleagues in school, and participating in voluntary study groups. In recent years, *Monbusho* has been encouraging teachers to earn master's degrees at one of the country's three designated graduate schools. These programs are selective and lead to a Special Training Certificate and higher pay. Teachers may also undertake post-graduate training in teachers' colleges. They continue to receive full salary during their studies but must pay enrollment fees and tuition and return to work in the district that sponsored them.

State and/or local policies in the United States often require teachers to earn a certain number of continuing education units (CEUs) in order to renew their teaching certificates. Policies vary on the types of activities that count for this purpose and may include workshops, university classes, and travel. Policies that require teachers to periodically accumulate CEUs usually apply regardless of the number of advanced degrees that a teacher may hold. In the past decade, research and evaluation studies have

criticized many state and local approaches to "in-service" training or continuing education for teachers. This, in turn, has led to the development of several sets of quality standards to guide professional development efforts.

Cultural Expectations: What It Means to Be a Teacher

Time pressures in teachers' professional lives are closely interwoven with what it means to be a teacher in a given culture. The image of teaching in a particular country emerges from the complex interplay of historical traditions, past and present policies, and general societal conditions. Cultural norms for the teaching profession in the United States, Germany, and Japan are in some ways similar but in others highly divergent. In part, this is because the value that people place on formal education varies from country to country in subtle ways. That value then extends to how others in the society view the teaching profession.

Also, in contrast to many other professions, teaching is a highly visible occupation. Every individual in industrialized nations has spent years on the receiving end of the teaching-learning process and, therefore, has a personal interpretation of the profession, whether positive or negative. Collectively, these impressions form a public image of the profession that often is not particularly representative of what the statistics show or what individual teachers say about their jobs.

Teaching in the United States

Teaching offers an important career path in the United States—one that in the 20th century has provided upward mobility and middle class status for several generations of Americans. This has been true particularly for women. According to the U.S. Department of Education's Schools and Staffing Survey, women represented 72 percent of the teaching force in 1990-91 (Choy, Henke, et al., 1993). Over 90 percent of public school teachers with general elementary school teaching credentials are female (NCES, 1997, p.9). As for their own education, less than one percent of teachers do not have at least a bachelor's degree; over half (54.5 percent) have a graduate degree or other advanced credential (NEA, 1997, p. 19).

Teachers are acutely sensitive, however, to the American public's perception that the length of the school day and year makes their job an easy one. Nearly every teacher has heard from friends and strangers alike about her or his "luck" in being able to go home early or in having a three-month summer vacation. Generally, U.S. teachers' minimum required work day coincides with students' school day. Teachers must be at school 15 to 30 minutes before students arrive and must stay for an equal amount of time after students depart. Student dismissal takes place at the same time every day. This constancy in the daily and weekly schedule becomes an important factor in comparing U.S. school schedules with Japan's.

But, according to a National Education Association survey, this does not mean that their professional day is over. Elementary school teachers in the U.S. reported spending an average of 10.7 hours per week on work-related activities beyond the average 35 or 36 hours that they are required to be at school. Over half (54 percent) said that they spent from 10 to 16 or more hours each week

outside of the required school day on work-related tasks, ranging from grading papers and preparing lessons to bus monitoring and club advising (NEA, 1997, p. 41).

Some of the perception about teachers' long summer break is technically accurate, however. Nearly 80 percent of American teachers hold 9-month or 10-month contracts requiring, on average, 180 teaching days plus five additional professional days per year (NEA, 1997, p. 45). For this schedule, they are paid, on average, $35,550 with variation based on location, education level, and years of experience[2], (NEA, 1997, p. 68). Vacation months are considered unpaid vacation, although most teachers have the option of having their regular salary paid out over 12 months. In comparison, most Americans who work on a contract basis but do not teach (including school and district administrators) hold 12-month contracts with from two to four weeks of paid vacation.

Increasingly, U.S. teachers are volunteering to work additional days or attend professional development events during vacation periods. This has become especially true in recent years (NEA, 1997, p. 70) as many schools, districts, and states began to develop education reforms such as standards-based curriculum frameworks or performance-based student assessments. For this additional work, teachers generally receive additional compensation in the form of stipends, which may be paid for with federal funds or foundation grants. In 1997, 43 percent of teachers surveyed indicated that they received additional income from summer activities; for 25 percent, the activities were school district-based. Not all teachers, however, are interested in giving up extended periods of their summer break for structured professional activities (Corcoran, 1998). Even then, however, most of them spend some time during vacation gathering materials and preparing for the new school year.

In addition to their unpaid summer break, most U.S. teachers' contracts include a number of holidays and school breaks during the school year, as well as some number of paid sick or personal leave days that are part of their agreed upon contract with a school district. If a teacher is absent on a school day, every effort is made to engage a credentialed, substitute teacher drawn from a pool of names maintained by a district or school. Substitutes receive a flat daily rate established by the district with funds set aside specifically for this purpose. If a substitute cannot be located (which is increasingly common), other school personnel (e.g., administrators or special purpose teachers) may be asked to "cover" the classroom since state laws and regulations require that students be supervised at all times while at school. This American practice of hiring substitutes is significant as traditions are quite different in other countries and affect teachers' uses of time.

In terms of the culture of their workplaces, U.S. teachers are sometimes critical of the structure of their jobs and their lack of professional status. Their mainly feminine voices (particularly at the elementary school level) have often been ignored in bureaucratic organizations where managers continue to be largely male (70 percent of school principals were men in 1990-91, according to the Schools and Staffing Survey). Whether rightly or wrongly, teachers in the United States also perceive a lack of public support. In its periodic (seven times since 1966) nationally representative survey of teachers, the National Education Association asks respondents to identify factors that are the biggest

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[2] While many teacher salary scales were adjusted upwards during the 1980s in recognition of the fact that they were out of line with other professions requiring a college degree, they nevertheless remain comparatively low. Based on a survey of recent college graduates, the average starting salary for new teachers was $3,700 lower than the average entry-level salary for the overall sample (NCES Issue Brief, March 1993: *Teacher salaries—Are they competitive?* Salaries for all jobs were computed on a 9.7 month basis to match the teacher contract year).

helps or hindrances to performing their job. The lack of public support first appeared on the list in 1981 and has been on ever since--rising from fourth to third place in 1996 (NEA, 1997, pp. 65-66). It is clear that many teachers perceive that their efforts on behalf of students are not appreciated.

Teaching in Germany[3]

The structure of the current German education system dates back to the mid-19th century. Elementary schools were village or neighborhood schools financed locally, open to all, and often provided the only schooling that most citizens received. Teachers in these schools were generally male and tended to be skilled workers looking for a second income. They were poorly paid and had little prestige in their communities.

Today, most teachers in the former West Germany are tenured civil servants of the state. They have very secure jobs and relatively high status in the society at large. Their rigorous preparation period puts them on a par with physicians, university professors, lawyers, diplomats, and engineers. At the current time, teachers in the former East Germany are a special case. They are not tenured civil servants, work mostly part-time, and receive lower pay than teachers in what was West Germany. These conditions are due to Germany's economic downturn and declining enrollments in this part of unified Germany, as well as Bonn's concern about the parity of teacher qualifications, particularly at the elementary school level.

Salary scales reflect a very hierarchical education system. Tracking decisions are made about students as early as fourth grade and teachers' salary scales vary by the track and tier (elementary, secondary I, secondary II) in which they teach. Elementary school teachers, who are now 72 percent female, are at the bottom of this pecking order. They spend the most number of hours in contact with students and earn the least pay. Upper-level secondary school teachers, who are 57 percent male, spend the fewest number of hours in contact with students and earn the most. These differential pay scales persist in spite of repeated attempts by the teachers' union to close the gap.

German teachers' civil service status, however, confers supplemental benefits. They receive salary increments for cost of living based on where they live, their marital status, the number of dependents they have, and their years of service (Stallman, 1990). In one state, a married first-year teacher would earn $24,300, with a base salary of $18,720 and a living supplement of $5,590. A married teacher with two children and 15 years of experience would earn $32,850 on the same salary scale, with a $24,120 base and supplements for dependents and living costs. Parenting leave is available to both men and women.

For elementary school teachers and students in Germany, the school day is short by U.S. standards, ending no later than 1:00 p.m. Typically, a full-time teacher works 17 to 21 hours at school a week. Government descriptions of the teaching profession state that teachers' work "falls into two areas: work in the school and work at home, which should each take a similar amount of time" (Bundesanstalt fur Arbeit, 1991, p. 6). This policy is based on trust of teachers' professionalism. There is no accountability system to ensure that teachers work at home.

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[3] All of the information in this section is derived from an unpublished monograph, "Time Use Among Teachers: Context Paper for Germany," by Linda Bailey (January 1996). Original sources for this paper were in German.

German teachers are on 12-month contracts. However, the school year for students is not notably longer than in the United States (an average of 188 days compared with an average of 180 here). The summer break is six weeks long and the remainder of the school year is broken up by one- or two-week vacations and a few one-day holidays. Teachers are expected to use vacations for preparation and professional development, but again, there is no real accountability system. According to a number of research studies, on average, teachers work as much or even more than other civil servants who receive six weeks of paid vacation .

Public school teachers in Germany have little control over their assignment to a school. However, once assigned, they are in almost total charge of what goes on in their classrooms. They are also entirely autonomous in assigning students to tracks and in deciding whether students should be held back in the same grade. German society generally is not as mobile as that in the United States, and there appears to be great stability among school staff. In many elementary schools, teachers are assigned a first-grade class and then move up through the grades with their students. In other schools, teachers teach the same students for two years.

Administrators (nearly all of whom, at the elementary school level, also teach) share school-level governance with a teachers' council that sometimes involves parents and students. Teachers who are tapped for administrative responsibilities have reduced teaching loads and higher salaries.

In some ways, however, civil servant status is a double-edged sword for German teachers. For example, as civil servants, they are subject to limits on their political involvement. Some people argue that the tenure system has been a barrier to the professionalization of teaching, providing little incentive for experienced teachers to continue growing and learning. Over the past 20 years, changes in attitude within the teaching profession have occurred primarily as a result of changes in preservice teacher preparation requirements. Today, elementary school teachers are more apt to see themselves as experts in academic subjects because they must take more content courses. In the same vein, upper division secondary school teachers tend to view themselves as teaching professionals rather than subject scholars because their preparation now includes a great deal of pedagogy.

In contrast to U.S. teachers, a relatively large and increasing proportion of German teachers teach part-time, especially at the elementary school level. In the former East Germany, nearly all teachers work part-time (82 percent of a full load) as an alternative to reductions in force. In 1990, part-time instructors taught approximately 28 percent of all periods in the early grades. State school staffing formulas based on required periods per week per grade and maximum allowable class size often add to the need for part-time teachers. During periods when part-time teachers have no assignment, they may come and go from the school as they wish. Both full-time and part-time teachers are free to hold second jobs, but at least in the former West Germany, few apparently do.

Substitute teaching is managed differently in Germany than in the United States. Substitutes are generally not available for short-term absences of a week or less. If a teacher is ill, her students may be divided up among other classrooms at the same grade level, and her classes may be canceled after the first four periods of the day. When there is advance knowledge that a teacher will be absent for an extended period, in a number of states, schools draw on a mobile reserve of full-time substitute teachers employed directly by the state government. Some states require new teachers to spend some time on active duty in the mobile reserve, in effect extending their probationary period. When they are not needed as long-term substitutes, these new teachers assist in schools as additional teaching

resources. This mechanism allows states to keep new teaching blood flowing into the system at a time when enrollments are dwindling and the number of newly qualified teachers exceeds hiring needs.

A recent economic downturn in Germany has caused both state and local education budgets to suffer. Volunteer activity and fund-raising by parent clubs are counteracting local cuts to some extent, especially those that would affect the upkeep of facilities. Budget crises at the state level, however, are having more serious consequences for teachers and schools. In Bavaria, for example, to reduce personnel costs, the state increased the number of teaching hours it requires of full-time teachers without increasing their pay. Elsewhere, the state reduced the number of school periods per week, eliminating sports and music classes. Actions such as these have demoralized teachers. One recent study documented considerable teacher dissatisfaction with their work load, which other studies show to be up to 15 percent more than the 38.5 hour week stipulated by civil service laws (Rudow, 1994).

Teaching in Japan[4]

The level of respect accorded teachers at all levels is high in Japan. Adults often seek out teachers for advice on marriage, work, and other decisions. Respect for teachers carries over into the compensation system where salaries are comparable to those in industry, thus allowing the profession to attract excellence. Nevertheless, Japanese teachers work hard for their money and their reputation.

Teachers are full partners with parents in preparing young people to be educated and responsible citizens. This means that one teacher may be responsible for over 40 students during both in and out of school hours (class size in Japanese elementary schools averages from 35 to 45 students). When a teacher goes away on vacation, she must file a form indicating her whereabouts in case something happens to a student. If a student gets into trouble, authorities often call the teacher along with parents. When they leave school for the day, Japanese teachers routinely stop at places where students congregate to shoo them home for dinner and homework.

Japan's annual school calendar begins in April. It includes a six-week summer vacation for students in addition to two weeks during the Christmas/New Year period and two weeks between school years. Principals have another 15 school holidays that they can call at their own discretion during the year. Most of the time that students are not present, however, teachers are expected to work. They receive 20 vacation days per year and 70 hours of personal time that may be used when students are in attendance. According to interviews and focus groups conducted for this study, teachers seldom take off more than a week of the paid time that is available to them.

As in the United States, teaching is an important career path, particularly for women. While 50 percent of Japan's workforce is female, many working women hold low-wage, low-prestige jobs or work in family-run businesses. The respect from others and equal pay for equal work that characterize the teaching profession thus become doubly important to female teachers. Sixty-one percent of the elementary school teaching force in Japan is female. Women are far less of a presence in junior high schools (39 percent) and senior high schools (23 percent). Their numbers at all levels continue upward

[4] Unless otherwise noted, all of the information in this section is derived from an unpublished monograph, "Teachers' Time Use: Context Paper for Japan", by Douglas Trelfa (January 1996).

at a steady pace nationally, although there is considerable variation between prefectures. In Hokkaido, for example, women make up only 36 percent of the elementary school teaching force.

Most teachers, especially women, will remain classroom teachers for their entire careers if they stay in education. School administrators (generally a principal and vice principal) are primarily male and over 50 years old. Some schools have master teachers who, instead of having classroom assignments, have schoolwide responsibilities. For this, they are paid higher salaries. *Monbusho* has encouraged this trend by establishing a Special Training Certificate that requires a master's degree.

Prefectures in Japan pay teachers' salaries. Each prefecture establishes its own salary scale, much as school districts do in the United States. There are two major differences, however. National laws in Japan ensure that (1) the wages of public employees keep pace with the private sector and (2) educators' salaries are relatively standardized across prefectures because they must conform to the salaries at the limited number of national schools run by *Monbusho*.

According to the background paper on the teaching profession in Japan prepared for this study, the average elementary school teacher made $2,559 per month in 1991, compared with $2,473 for policemen and $3,579 for doctors and dentists, who earn the highest salaries in the country (Somucho, 1993). Teachers are also eligible for bonuses that are conferred twice a year and pegged to local cost of living estimates, dependent allowances, and 16 other kinds of context-specific allowances that raise their total salaries considerably. In 1996, through the bonus structure alone, a teacher earning $2,559 in base salary per month received an additional $5,630 in the summer (2.2 percent of base) and $6,909 in the winter (2.7 percent of base).

Some Japanese teachers find their work stressful. In focus groups and interviews they expressed much of the stress they feel in terms of time pressures: long days, little opportunity for vacation, many professional responsibilities besides instruction, and so on. Burnout is causing attrition in the system, particularly among women who must bear the brunt of responsibility for family life as well. In one survey, 47 percent of women, as opposed to 21 percent of men, reported wanting to quit teaching because of an excessive work load. A third of the women surveyed indicated that they had considered resigning from teaching because of family concerns (Inakagi & Kudomi, 1994).

Some of the stress may also stem from changes in Japanese society and in the behaviors of children and youth. While changes in Japan are not as dramatic as in some other countries, schools and teachers must nevertheless concern themselves with the effects on children when both parents work, for example. Most schools must also guard against disturbing behavioral trends among students, including the severe bullying and teasing that has driven some students to suicide. Just recently, Japan also experienced an increase in what it calls "school refusal syndrome," a situation characterized by excessive student absences from school and lost learning time. Both these problems appear to be abating, however, after schools put the spotlight on them.

Summary

This chapter has presented an overview of the teaching profession in the United States, Germany, and Japan. Clearly, in each of these countries, different policies, traditions, and cultures govern teachers' day-to-day work. Key differences in the teaching profession at the elementary school

level appear not to be at the level of teacher-student relationships in the classroom. Rather, they are at a macro level of policies and traditions that shape the culture of the profession. Succeeding chapters examine some of these important differences in more depth, including:

- the hours that teachers work beyond their direct time with students;
- the length of students' school day;
- the length of teachers' work day;
- traditions governing when and where teachers plan and prepare lessons; and
- control of teachers' professional time.

Chapter 3

Teachers' Required School Day in the United States, Japan, and Germany: A Quantitative Look

When teachers in the United States describe their professional lives, they commonly distinguish between the number of hours that their contracts say they need to be on the job (on-the-clock time) and the additional time they spend planning and preparing lessons, reporting, collaborating, and working on committees (off-the-clock time). Typically, on-the-clock time for elementary school teachers in this country includes the time that students are present in the school building and a relatively brief period (generally 15-30 minutes) before they arrive and after they leave. Teachers in Japan and Germany make similar distinctions between their required work hours and the extra time they put into meeting the obligations of their profession. This chapter compares the quantitative uses of teachers' time during the hours when they must be present in school. The analysis demonstrates that these times differ, both within and across countries.

To collect the data for the analyses in this chapter, two members of the core study team visited each of the U.S. schools for two days. They interviewed teachers, administrators, and other staff, "shadowing" a few teachers in a school for a portion of a day, and collecting documents such as the school's master schedule and other explanatory materials. Two core team members, each fluent in the language of the country, gathered information on Japan and Germany. These individuals conducted interviews and collected school schedules and other explanatory documents that schools made available. Their time at the school sites was far more limited than in the United States, however. Sometimes it consisted of a tour of the school but no classroom observation or shadowing of teachers. The team members also managed, from a distance, data collection by university professors and other professionals with a good knowledge of the school systems in those countries. The study team considered the possibility of having teachers log their uses of time over a two-week period, but the study budget could not bear the additional expense.

The analyses begin with a look at several key variables in both teachers' and students' use of time during a one-week period in the U.S., Japanese, and German case study schools. This is followed by cross-national analyses of time allocations in these schools over a two-week period to accommodate Japan's half day of school every other Saturday. The data for these analyses come from the small number of schools in each country that participated in this study. The findings are about these specific schools and should not be interpreted as being representative of other schools in the nation. Because German and Japanese elementary school teachers' schedules often vary by the grade they teach, the analyses for these countries are even more specifically about teachers and students in fourth grade.

The primary findings from the analyses are these:

- **Japanese case study schools:** The combination of a longer teacher day and variable student dismissal times during the week creates sustained blocks of planning and preparation time for teachers in Japan. Almost all official, on-the-clock planning time in Japan occurs after students go home.

- **U.S. case study schools:** On-the-clock planning time for U.S. teachers is dispersed throughout the official school day and week and is derived from required before and after school time, contractual planning periods when students are with specialist teachers, and duty-free lunch and recess. The student schedule in most U.S. schools begins and ends at the same time every day.

- **German case study schools:** The length of the school day in Germany is very short for both students and teachers, generally ending by 1:00 p.m. Planning and preparation time is not a part of teachers' on-the-clock time but they are expected to spend time equivalent to their instructional time on classroom-related tasks. Reports from German teachers on the amount of afternoon and evening time they spend on work for school vary from teacher to teacher.

A Dichotomous Look at On-the-Clock Time: Time With Students and Time Without Students (One-Week Time Period)

During the time that teachers must be at school, they work under one of two conditions: either they are with students, or they are not. The time that they are with students is primarily, but not entirely, instructional. Schools vary in the supervisory duties they require of classroom teachers during students' arrival and dismissal, meals, and recesses. Time when teachers are required to be in school but do not have either instructional or supervisory responsibility for children is potential time to accomplish the many other tasks associated with teaching—contacting parents, grading student work, duplicating materials for a lesson, meeting with colleagues, planning a curriculum unit. This is the category of time that some U.S. teachers say is in short supply or poorly structured. This section begins by examining traditional patterns of teachers' on-the-clock time with and without students in the three countries.

On- the-Clock Time in U.S. Elementary Schools

Teachers in the three traditional U.S. schools[5] uniformly have a seven- to eight-hour school day five days a week. Students are present for six to seven of those hours, but there is a good deal of variation in the proportion of time that classroom teachers spend with their students.

The column labeled "Classroom Teachers' Time with Students" includes all the time in the school day that teachers are responsible for a group of children, including lunch, recess, and before or after school as appropriate to a particular school. If teachers have duty-free lunch or recess, then that time is included in the column, "Classroom Teachers' Time without Students." Also in that column are official, contractual preparation periods, usually linked to students' scheduled time with special subject teachers for art, music, and physical education.

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[5] Exhibit 2 reflects only the traditional U.S. schools in the study--those that had not explicitly focused on reforms involving teachers' time. Chapter 5 compares the school schedule of innovative schools with both traditional U.S. schools and the German and Japanese schools.

Exhibit 2
Uses of Daily Required Time in Traditional Case Study Schools: United States

(1) School	(2) Required School Day	(3) Classroom Teachers' Time *with* Students	(4) Available Instructional Time for Students	(5) Classroom Teachers' Time *without* Students	(6) Percent of Required Time without Students
South Carolina	Teachers: 7.4 hrs. Students: 6.9 hrs.	6.2 hours	5.9 hours	1.2 hours	16%
Texas	Teachers: 8 hrs. Students: 7 hrs.	5.75 hours	6.5 hours	2.25 hours	28%
Washington	Teachers: 7 hrs. Students: 6 hrs.	4.5 hours	4.9 hours	2.5 hours	36%

The following patterns explain the time differences among U.S. schools in this study:

- South Carolina: Teachers at this school spend lunch and recess (a total of one hour) with their students. They have one 40-minute planning period each day and must be at school for 15 minutes before children arrive and after they leave—a total of 70 minutes of daily on-the-clock time without students.

- Texas: Teachers have a 30-minute duty-free lunch and a 45-minute planning period. They must be at school 30 minutes before students arrive and remain for 30 minutes after they leave. This gives them a total of 135 minutes of daily on-the-clock time without students.

- Washington: Teachers have a 45-minute duty-free lunch, a 20-minute duty-free recess, and 120 minutes of planning time per week, which the study team prorated to about 25 minutes per day. They are required to arrive 30 minutes ahead of students and stay 30 minutes after students leave—for a total of 150 minutes of daily on-the-clock time without students. A school day that is shorter for both teachers and students than in the other two schools gives these teachers a substantial proportion (36 percent) of time without students.

American public elementary school teachers average about three hours per week of contractual preparation time during their required time at school (NEA, 1997). Prorated over five days, this comes to 36 minutes per day. The average (a subset of the time aggregated in Column 5 of Exhibit 2) for these three schools—37 minutes—is consistent with the national data.

Another analysis of NEA survey data conducted by the American Federation of Teachers (Nelson & O'Brien, 1993) found that American elementary school teachers spend a higher proportion of total required work time (85 percent) devoted to instruction (i.e., direct contact with students) than do teachers in many other countries, including Japan (69 percent) and Germany (67 percent). The only one of the three traditional schools in this study to fit this profile, however, is the school in South Carolina, where teachers spend 84 percent of their time with students.

All three of these schools carve out contractually based daily or weekly planning periods by scheduling students with specialist teachers for subjects such as art, music, and physical education. This is standard procedure in American elementary schools.

On-the-Clock Time in Japanese Elementary Schools

Americans have many perceptions and misperceptions about the education system in Japan. While there seems to be little doubt that Japanese students outscore U.S. students in international comparisons of academic achievement, other assertions (e.g., that Japanese students spend more time in school or that Japanese teachers work longer hours) have been less thoroughly documented. For the purposes of this study, the study team asked whether the time structures governing Japanese elementary school teachers' and students' school day might yield ideas for restructuring the use of time in U.S. schools. On-site data collectors in Japan visited nine schools, focusing their interviews on weekly school schedules and staffing arrangements to better understand the educational uses of available time. Exhibit 3 presents an analysis of required, on-the-clock time allocations in six of these schools[6] that parallel the previous analysis of U.S. schools. The other three schools were unable to provide complete scheduling data.

Looking at the column labeled "Required School Day," two key differences between Japanese and U.S. case study schools immediately stand out:

- The required teacher school day is longer in Japan.
- The student school day is variable in Japan and is considerably curtailed on at least one day per week.

The interaction of these two factors produces sustained, on-the-clock time without students for Japanese teachers—all of it after students have gone home. In some schools, student schedules vary almost daily. Despite this variability, cumulative instructional time per week (or over a two-week period that includes a Saturday morning) in each school presumably meets national guidelines.

The required school day for teachers in these six Japanese schools begins between 8:15 a.m. and 8:30 a.m. and officially ends between 4:30 p.m. and 5:15 p.m. The official school day for U.S. teachers tends to start earlier (seven of the nine schools require teachers to arrive between 7:30 a.m. and 8:00 a.m.) and ends earlier (by 3:30 p.m. for most teachers). However, the average required daily time at school for the U.S. teachers is 7.4 hours; for the Japanese teachers, it is 8.5 hours. Of course, neither of these calculations takes into account the off-the-clock time that individual teachers commit to their jobs. Those comparisons appear later in this report. The point here is that Japanese norms require teachers to remain in the school building longer (or attend to school-related business elsewhere such as at prefecture offices).

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[6] As with the analysis of daily and weekly U.S. schedules, the analysis for Japan is based on the fourth-grade schedules. Students in grades 1-3 attend school for fewer periods per week and go home earlier than older students on most days. Their teachers, however, have the same required hours as upper-grade teachers, rounding out their instructional day by teaching special subjects or taking on time-consuming, schoolwide responsibilities such as development of the annual school plan.

Exhibit 3
Uses of Daily Required Time in Case Study Schools: Japan
(1-Week Time Period)

(1) School	(2) Required School Day*	(3) Classroom Teachers' Time with Students	(4) Classroom Teachers' Time without Students	(5) Percent of Required Time without Students
Tokyo-C	Teachers: 8.6 hrs.	6.6 hours (4 days)	2 hours (4 days)	23% (4 days)
	Students 4 days: 7.4 hrs. 1 day: 4.8 hrs.	4.3 hours (1 day)	4.3 hours (1 day)	50% (1 day)
Tokyo-H	Teachers: 8.75 hrs.	6.75 hours (3 days)	2 hours (3 days)	23% (3 days)
	Students 3 days: 7.3 hrs.	5.6 hours (1 day)	3.15 hours (1 day)	36% (1 day)
	1 day: 6.2 hrs. 1 day: 5.2 hrs.	4.8 hours (1 day)	3.95 hours (1 day)	45% (1 day)
Sendai-W	Teachers: 8.75 hrs.	6 hours (2 days)	2.75 hours (2 days)	31% (2 days)
	Students 1 day: 7 hrs.	5.8 hours (1 day)	2.95 hours (1 day)	34% (1 day)
	1 day: 6.75 hrs. 2 days: 6 hrs.	5 hours (1 day)	3.75 hours (1 day)	43% (1 day)
	1 day: 5.1 hrs.	4.4 hours (1 day)	4.35 hours (1 day)	50% (1 day)
Sendai-Y	Teachers: 8.75 hrs.	6.25 hours (2 days)	2.5 hours (2 days)	29% (2 days)
	Students 2 days: 7 hrs. 3 days: 6.25 hrs.	5.3 hours (3 days)	3.45 hours (3 days)	39% (3 days)
Hiroshima-N	Teachers: 8 hrs.	6.4 hours (2 days)	1.6 hours (2 days)	20% (2 days)
	Students 2 days: 7.25 hrs.	5.4 hours (2 days)	2.6 hours (2 days)	33% (2 days)
	2 days: 6.25 hrs. 1 day: 5.5 hrs.	5.2 hours (2 days)	2.8 hours (1 day)	35% (1 day)
Hiroshima-O	Teachers: 8.1 hrs.	7.1 hours (1 day)	1 hour (1 day)	12% (1 day)
	Students 1 day: 8 hrs.	6.75 hours (2 days)	1.35 hours ((2 days)	17% (2 days)
	2 days: 7.7 hrs. 1 day: 6.2 hrs.	5.4 hours (1 day)	2.7 hours (1 day)	33% (1 day)
	1 day: 5.3 hrs.	5.2 hours (1 day)	2.9 hours (1 day)	36% (1 day)

* Although Japanese students and teachers attend school for a half day on every other Saturday, the analysis in this exhibit is based on Monday-Friday school schedules in order to provide comparability with the previous exhibit on U.S. schools. A later analysis in this chapter examines time frames in all three countries based on two-week segments that take into account the Saturday sessions in Japan.

Japanese elementary school teachers are with their classes most of the time when students are in school. They eat in their classrooms with their students during lunch and stay with them during a clean-up period that follows. Although students do leave their classroom teacher for specialized instruction, this does not mean that classroom teachers get planning time. Instead, they either teach another class or work on some special, school-related assignment.

Student schedules include two types of "breaks" or recesses after a block of instruction: short (5 minutes) and long (20 minutes). Only when students get longer breaks do teachers get breaks. Teachers reported using the long breaks to make a cup of tea and prepare for the next instructional period (therefore, time without students in these calculations); they remain with the students during short breaks.

On-the-Clock Time in German Elementary Schools

German schools for children in what would be grades 1 through 4 in the United States are called *Grundschule*. The *Grundschule*—sometimes referred to as half-day school—has a long tradition in Germany and reflects a time when mothers did not work and the family gathered for the main meal of the day in the early afternoon. It is also rooted in beliefs about the amount of time that young children should be in school.

The required school day and week for both teachers and students in these schools are considerably shorter than in the United States and Japan. While requirements vary slightly by state (schools in three German states were visited for this study), the basic pattern is consistent. First and second graders attend school from about 8:00 a.m. until about 11:30 a.m., when they either go home or attend after-school programs called *horts*. Children in these grades who need remedial instruction may remain until noon or 1:00 p.m. on some days. Third and fourth graders attend school from about 8:00 a.m. until about 1:00 p.m. each school day Their teachers are required to be at school only slightly longer--five to ten minutes before school and the same amount of time at the end of the day. Exhibit 4 summarizes information on the amount of time teachers are required to be at school in each of the three German schools.

During the school day, *Grundschule* teachers are nearly always with students. The daily schedule includes two 15- to 20-minute recesses. Teachers supervise these, usually on a schedule that allows each teacher at least one break per day. Students do not eat lunch at school. Over the course of a week, the school schedule has 30 instructional periods of 45 minutes each. Depending on the state, a full-time teacher is engaged in instruction for 27 or 28 of them, leaving two or three "free" periods a week to the teacher's discretion. Often, teachers designate one of these periods as an office hour for parent conferences, but they are also free to leave the building for personal errands or appointments during these times.[7] Students do leave their classroom teachers to attend "specials" (gym, shop, religion), but if their teacher is employed full-time, she then goes to another classroom to teach. For example, in one school, a second-grade teacher teaches music and a remedial period in a third-grade class while her own students attend a double period of shop.

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[7] Teachers in U.S. and Japanese elementary schools may also sometimes leave the building during the school day for errands and appointments. Our impression is that these occasions are rare, whereas in Germany it is the norm.

Exhibit 4
Uses of Daily Required Time in Case Study Schools: Germany

School	Required School Day[1] (Monday-Friday)	Classroom Teachers' Time with Students	Classroom Teachers' Time without Students	Percent of Required Time without Students
Frankfurt-1	Teachers: 5.5 hrs. Students: 4.3 hrs.[2]	4.5 hours	1 hour[3]	18%
Leipzig-2	Teachers: 5.5 hrs. Students: 4.6 hrs.	4.5 hours	1 hour	18%
nich-1	Teachers: 5.25 hrs. Students: 4.55 hrs.	4.4 hours	.85 hour	16%

[1] The analysis for German schools is based on the required working day of a full-time teacher. Full-time is defined by the number of instructional periods taught per week and varies somewhat from state to state.

[2] This figure is based on a fourth grader's school week in the state of Hesse. Children of this age receive 24 periods of instruction per week. They are therefore at school for 1,280 minutes per week (21.3 hours), or 4.3 hours per day. Similar calculations were made for the other schools in the exhibit, based on the requirements of their respective states. In Thuringia (Leipzig), fourth graders also attend school for 24 periods per week. In Bavaria (Munich), the policy is 27 periods.

[3] This is a prorated estimate. A full-time teacher in this state has three "free" periods per week. In addition, teachers are required to be at school five minutes before students arrive and must stay for 10 minutes after students leave (15 minutes per day). There are two 20-minute recesses each day, and the assumption here is that each full-time teacher supervises one. Total time without student contact, per week, is thus estimated to be 310 minutes per week, or just slightly over one hour per day. Similar calculations are made for the other schools.

While in some ways this schedule is an anachronism in a country where, increasingly, both parents are employed, there is no serious pressure on governments to move to a full-day schedule. In fact, one state recently reduced instructional time for both teachers and students for economic reasons. Various types of governmental and nongovernmental agencies, however, have been increasing the number of after-school programs available to families.

In contrast to case study schools in the United States and Japan, then, *Grundschule* teachers in the German case study schools have no tradition or expectation of planning lessons, calling parents, arranging field trips, or grading student work during their required school day. They use any brief respites in the day, such as a recess without supervisory duty, for relaxation. German teachers carry out their noninstructional responsibilities primarily at home and "off-the-clock."

Three Country Comparison: Teachers' On-the-Clock Time (Two-Week Time Period)

Each analysis in this section includes the three traditional U.S. schools, six Japanese schools, and three German schools. The time calculations are based on two-week segments representing 10

school days in the United States and Germany, and 10.5 days in Japan. In Exhibit 5, columns are arranged in the same order and represent the same assumptions as in the country-by-country analyses presented in the first part of this chapter.

Teachers' Required Time at School

Over a typical two-week time period, the total amount of time that teachers in these 12 schools are required to be engaged in professional activities in the school building ranges from 91.5 hours in three of the Japanese schools to 52.5 hours in one of the German schools. Although there is variation within the same country, all of the schools in a given country cluster together, indicating three distinct traditions of on-the-clock professional time. Japanese teachers in the case study schools spend the most total time with students, followed by U.S. teachers, and then German teachers. As the next few pages illustrate, the nature of Japanese teachers' interactions with students also differs from teachers' interactions in the United States and Germany.

Exhibit 5
3-Country Comparison: Allocation of Teachers' Time (2-Week Time Period)

(1) School	(2) Teachers' Total Required Time	(3)[a] Required Time with Students	(4) Available Instructional Time [b]	(5) Required Time without Students
Sendai-W	91.5 hours	57.7 hours	43.9 hours	33.8 hours
Sendai-Y	91.5 hours	60.6 hours	46.8 hours	30.9 hours
Tokyo-H	91.5 hours	64.2 hours	41.3 hours	27.3 hours
Tokyo-C	89.8 hours	64.8 hours	45.9 hours	25 hours
Hiroshima-O	84.6 hours	65.7 hours	42.6 hours	18.9 hours
Hiroshima-N	84 hours	61 hours	43.6 hours	23 hours
Texas	80 hours	57.5 hours	65 hours	22.5 hours
South Carolina	74.2 hours	62.5 hours	59.2 hours	11.7 hours
Washington	70 hours	45.2 hours	49.2 hours	24.8 hours
Frankfurt-1	55 hours	44.7 hours	36 hours	10.3 hours
Munich-1	52.5 hours	43.5 hours	40.5 hours	9 hours
Leipzig-1	55 hours	45.5 hours	38.8 hours	9.5 hours

[a] Columns 3 and 5 sum to the total time in Column 2.

[b] "Available instructional time for students" means time that students are at school and not at lunch or recess. Not all of that time is spent with the regular classroom teacher.

Time With and Without Students

The first half of this chapter laid out the parameters of what a week of on-the-clock time is like for teachers in each of the case study schools. At any given time during this period, teachers are either with students for some purpose or they are not. Now, we will make a finer-grained examination of this dichotomy, looking at instructional time, noninstructional time when teachers are with students, and finally, the time that is potentially available for planning and preparation over a two-week period. In comparison with U.S. and German teachers, teachers in Japan spend more hours with their students, but they devote a significant number of those hours to non-academic activities. By percentage, German teachers spend the highest proportion (over 80 percent) of their required time at school with their students and focused on academic instruction, although German students receive fewer total hours of instruction than students in the other two countries.

Required instructional time with students. Recent studies comparing the U.S. and Japanese education systems have made the point that Japanese students actually receive fewer hours of academic instruction and yet outscore U.S. students on international tests such as the Third International Mathematics and Science Study (TIMSS). Exhibit 6 shows the rank order of available instructional time for fourth-grade students in the 12 schools in this study (still excluding the "innovative" U.S. schools), as well as each country's average, based on two-week time segments. Again, available instructional time is defined as time that students are at school and not at lunch or recess.

The analysis bears out the findings of other studies and the general public's impression that U.S. teachers devote more time to direct teacher-student academic instruction than do teachers in Japan and Germany. The pattern among these 12 schools, however, indicates variability within countries, and a single school in the United States or Japan may be closer to the average for another country than to its within-country average.

The range of time available for instruction is greater among the three U.S. schools than in German or Japanese schools. This is largely due to U.S. traditions of local control over time-related policies. States typically set minimums; local districts and even schools may increase these standards and decide on matters such as the length of recess periods and the length of the total school day.

Distribution of teachers' time with students. The basic two-week, hourly time calculations, standardized across the three countries, make it possible to compare the proportional uses of teachers' on-the-clock professional time. The next analysis (Exhibit 7), fine-tunes the information on classroom teachers' time with students by distinguishing between (1) classroom teachers' instructional time with students; (2) time for other kinds of student contact; and (3) the time when teachers are not with students. The analysis is presented as the percentage distribution of total on-the-clock hours in Exhibit 5 above across these three categories. The schools are rank ordered from highest to lowest by the proportion of teachers' total on-the-clock time devoted to direct academic instruction (Column 2). The results illustrate important cross-country differences.

Exhibit 6
Available Instructional Time in a 2-Week Time Period:
3-Country Comparison for Germany, Japan, and the United States

School	Available Instructional Time
Texas	65.0 hours
South Carolina	59.2 hours
Washington	49.2 hours
Sendai-Y	46.8 hours
Tokyo-C	45.9 hours
Sendai-W	43.9 hours
Hiroshima-N	43.6 hours
Hiroshima-O	42.6 hours
Tokyo-H	41.3 hours
Munich-1	40.5 hours
Leipzig-1	38.9 hours
Frankfurt-1	36.0 hours
U.S. average	57.8 hours
Japanese average	44.0 hours
German average	38.5 hours

Exhibit 7
Distribution of Classroom Teachers' On-the-Clock Time:
A 3-County Comparison Based on 2-Week Time Segments

(1) School	(2) Classroom Teachers' Instructional Time with Students	(3) Non-instructional Time with Students	(4) Subtotal	(5) Time Without Students	(6) Total
Munich-I	77%	6%	83%	17%	100%
Texas	72%	0%	72%	28%	100%
Leipzig	71%	12%	83%	17%	100%
South Carolina	71%	13%	84%	16%	100%
Frankfurt-I	65%	16%	81%	19%	100%
Washington	65%	0%	65%	35%	100%
Hiroshima-N	52%	21%	73%	26%	99%*
Tokyo-C	51%	21%	72%	28%	100%
Sendai-Y	51%	15%	66%	33%	99%*
Hiroshima-O	50%	27%	77%	23%	100%
Sendai-W	48%	15%	63%	37%	100%
Tokyo-H	45%	25%	70%	30%	100%

* Totals do not sum to 100% because of rounding.

In this analysis, the German and U.S. schools are interspersed at the top end of the spectrum. On average, German teachers spend the highest proportion of total, in-school instructional time with students (71 percent), but U.S. teachers are close behind (69 percent). In keeping with previous research and general perceptions, teachers in the Japanese schools average only 50 percent of their required, on-the-clock time instructing students.

Rank ordering Column 3 produces a different perspective, as Exhibit 8 shows. The definition of "Non-instructional Time with Students" in the three countries varies to some degree. In the United States, it includes planning periods as well as lunch and recess if these are not duty free by contract or custom. In Japan, it includes lunch, clean-up time, short recesses, and club periods that occur on some days of the week. In Germany, the comparable time is devoted almost exclusively to student recesses.

Exhibit 8
Non-instructional Time* with Students:
A 3-Country Comparison Based on 2-Week Time Segments

School	Non-instructional Time with Students
Hiroshima-O	27%
Tokyo-H	25%
Tokyo-C	21%
Hiroshima-N	21%
Frankfurt-1	16%
Sendai-Y	15%
Sendai-W	15%
South Carolina	13%
Leipzig-1	12%
Munich-1	6%
Texas	0%
Washington	0%

*Proportions of teachers' non-instructional time with students were derived using Columns 3 and 4 of Exhibit 5: Column 4 subtracted from Column 3 divided by Column 2.

The comparisons in Exhibit 8 are quite striking. Japanese teachers spend as much as one-fourth of their time with students during non-instructional periods. A large chunk of that time comes during lunch, clean-up, and break periods in the middle of the day. Combined, these segments are up to 80 minutes long. Teachers, particularly teachers of young children, stay with their classes for most of this time, perhaps slipping away for a cup of tea in the last 10 to 15 minutes. *While this study uses the term "non-instructional" to mean time not devoted to academics, Japanese teachers view all of their time with students as instructional.* The lunch and clean-up drills are important times for instilling social and cultural values in children.

Because German schools end before lunch, non-instructional periods consist of only one or two short breaks or recesses during the morning. The differences among the three German schools in Exhibit 8 primarily reflect school size. In larger schools, teachers may not be on duty every recess; in smaller ones, they are.

U.S. teachers' tradition of non-instructional time with students takes on a different cast still. At two of the three schools, teachers spend no non-instructional time with their students because recesses and lunch are duty-free. Unlike in Japan, the lunch break in the U.S. elementary schools is short (no more than 30 minutes) and involves tightly scheduled cafeteria "shifts." This means that a standard pattern in many U.S. schools is that teachers spend no non-instructional time with students. The school

in South Carolina stands out because teachers eat lunch with students and supervise their recesses. These teachers do not resent these duties, believing as Japanese teachers do, that these segments offer important opportunities to know their students in nonacademic settings.

Potential Planning and Preparation Time

The general perception among educators in the United States is that Japanese teachers have more on-the-clock time for planning and other professional duties that do not involve direct contact with students. Many have heard about the common lesson preparation room in Japanese schools where teachers have a desk, often clustered with that of other teachers from their grade level for collaborative, collegial planning. Both of these characteristics seem desirable to many teachers in the United States. Exhibit 9 takes a closer look at the amount and the proportion of teachers' required, on-the-clock time when they are not working directly with students.

In terms of total amount of on-the-clock time without students (Exhibit 9, Columns 1 and 2), two of the U.S. schools fall near the bottom of the Japanese range (the mean number of hours for the six Japanese schools is 26.6 over the two-week period). The school in South Carolina tops the bottom third of the total range, with an amount of on-the-clock planning time that is similar to that of the German schools. The median on-the-clock planning time for the entire group of 12 schools is 22.5 hours, which two of the U.S. schools meet or exceed.

One of the most striking things about the amount of planning and preparation time that teachers have during the official school day is the within-country variability in both Japan and the United States. The picture that U.S. educators have about Japanese teachers' planning and preparation time is clearly not representative of all schools in Japan. Similarly, average planning time for elementary school teachers in the United States (as reported by the NEA) suggests that the South Carolina school is typical, at about an hour a day over the two-week period. Yet the other two U.S. schools have over twice that amount when all of the time in the day without students is added up.

Arraying the 12 schools in this group by the proportion of on-the-clock time that teachers are not directly engaged with students (Exhibit 9, Columns 3 and 4) changes the rank order. The three U.S. schools fall across the range of practice.

Proportionally, as a percentage of teachers' total required time at school, planning time available to teachers in Washington compares favorably with that available to Japanese teachers. The percentage of planning time at the Texas school (28 percent) is comparable to the average 30 percent in the six Japanese schools. Given their lunch and recess supervisory responsibilities, teachers at the South Carolina school have even less (16 percent) on-the-clock planning time available than do German teachers with their very short, student-centered school day.

Exhibit 9
On-the-Clock Time Without Students:
A 3-Country Comparison Based on 2-Week Time Segments

(1) School	(2) Amount of Required On-the-Clock Time without Students	(3) School	(4) Proportion of Required On-the-Clock Time without Students
Sendai-W	33.8 hours	Sendai-W	37%
Sendai-Y	30.9 hours	Washington	35%
Tokyo-H	27.3 hours	Sendai-Y	33%
Tokyo-C	25.0 hours	Tokyo-H	30%
Washington	24.8 hours	Tokyo-C	28%
Texas	22.5 hours	Texas	28%
Hiroshima-N	22.5 hours	Hiroshima-N	26%
Hiroshima-O	19.8 hours	Hiroshima-O	23%
South Carolina	11.7 hours	Frankfurt-1	19%
Munich-1	11.7 hours	Munich-1	17%
Frankfurt-1	10.3 hours	Leipzig-1	17%
Leipzig-1	9.5 hours	South Carolina	16%

These analyses show that inter-country comparisons of the quantity or proportion of time that teachers have available for planning and preparation yield some differences but they are not stark. The fact is that some U.S. schools appear not terribly different from some Japanese schools in either the amount or the proportion of on-the-clock time they allocate to planning, preparation, and other *ad hoc* duties that teachers must carry out. Further, the South Carolina example suggests that some U.S. schools may be similar to German schools in both the amount and the proportion of on-the-clock time teachers have for these purposes.

Conclusion

This chapter began with country-by-country comparisons of the weekly structures governing teacher and student time in a small set of U.S., German, and Japanese elementary schools. The key lessons to emerge from these analyses are:

- In the three traditional case study schools, U.S. teachers' school day is seven to eight hours long. The student school day is six to seven hours long, with very little variation within the week.

- There is a fair amount of variability among the three U.S. schools with regard to the proportion of time teachers spend with and without students in the course of a school day and week.

- In the six Japanese case study schools, the teachers' school day is longer than that of their counterparts in the United States. Teachers spend between eight and nine hours in school each day. The student school day varies by day of the week, with at least one very short day. This produces one or more sustained blocks of teacher planning and preparation time per week.

- In the three German case study schools, the school day is short for both German teachers and students—5 to 5.5 for teachers and 4 to 4.5 hours for students. When students are in school, teachers are nearly always with them.

- German teachers leave school at nearly the same time as students—around 1:00 p.m.. They do virtually all their planning and preparation "off-the-clock," according to the definition in this report.

The second half of the chapter compared the amount and distribution of teachers' time across key variables of on-the-clock time with and without students in each of the three countries. This analysis suggests that in the same schools studied:

- U.S. students spend more time engaged in academic instruction than students in the other two countries, confirming previous research.

- German and U.S. teachers spend about the same proportion of their total in-school time on student academic instruction (71 and 69 percent respectively). Japanese teachers spend about 50 percent of their time on academic instruction.

- Japanese teachers spend up to approximately one-fourth of their time with students in activities other than academic instruction. In some U.S. schools (two of the three case study sites), the proportion of time in this category is zero because of duty-free lunches and recesses.

- The amount of on-the-clock time without students per two-week periods varies from school to school in the United States and Japan. In general, among the small number of schools in this study, Japanese teachers have the most amount of planning time, the United States falls in the middle, and German teachers have the least.

- In terms of time without students as a proportion of all on-the-clock time, U.S. schools distribute themselves from second highest in the group at 35 percent to lowest at 16 percent. The third U.S. school falls in the middle of the Japanese distribution at 28 percent.

The next set of questions concerns the structure of teachers' on-the-clock planning and preparation time and how they use that time. The comparisons focus primarily on U.S. and Japanese teachers since German teachers have virtually no planning and preparation time within the required school day. Chapter 5, which focuses on teachers' professional commitments beyond the required school day, returns to comparisons among the three countries.

Before we leave this chapter, however, it is useful to introduce the six innovative U.S. schools that study team members visited for this study. As a reminder, these schools were selected precisely because they appeared to have broken open the black box of on-the-clock time use. Succeeding chapters use these schools to illustrate how innovations in the structure of time might make a difference in U.S. schools.

The study team compiled the same information about on-the-clock time distributions for each of the six innovative U.S. schools as it did for the other schools in this study. Exhibit 10 presents the results. As reference points, the country averages for the traditional schools appear at the bottom of the exhibit.

Exhibit 10
Basic Time Data for 2-Week Interval:
Innovative U.S. Schools

(1) School	(2) Teachers' Total Required Time	(3) Required Time with Students	(4) Available Instructional Time	(5) Time without Students	(6) Percent Time without Students
Florida	73.3 hours	40.3 hours	59.7 hours	33 hours	45%
New York	63.3 hours	47.5 hours	55 hours	15.8 hours	25%
South Carolina	75 hours	56.7 hours	59.2 hours	18.3 hours	24%
Texas	80 hours	59.5 hours	65 hours	20.5 hours	26%
Washington	79 hours	50.6 hours	48.7 hours	28.7 hours	36%
Wisconsin	80 hours	56.5 hours	52.5 hours	23.5 hours	29%
U.S. (traditional) average	72.8 hours	55.1 hours	57.8 hours	19.7 hours	26%
Japanese average	89 hours	62.3 hours	44 hours	26.6 hours	30%
German average	54.2 hours	44.6 hours	38.5 hours	9.6 hours	18%

Succeeding chapters compare these data, as appropriate, to data from the traditional U.S. schools and the patterns observed in Japan and Germany. The key innovations in the use of time in each school are as follows:

- **Florida:** This school has a variable school week, "banking" time on four days that are longer in order to accumulate time for early student dismissal and sustained planning time on the fifth day. In addition, the schedule on the four longer days gives every classroom teacher a two-period block of planning time.

- **New York:** This school, in a district with strong teachers' union affiliation and strict protection of teachers' rights, has no official claim on any teacher time other than when students are present. Within this context, the school uses creative scheduling and a schoolwide commitment to collaboration to turn a daily preparation period and duty-free lunch into significant on-the-clock planning time as often as possible.

- **South Carolina:** This school, which is in the same district as the traditional school in South Carolina, is a magnet school of the arts. Classroom teachers have two planning periods per day when students are with arts specialists (some are part-time instructors) and a slightly longer school day than others in the district. Like the traditional school, teachers at the magnet eat lunch with students and supervise their recesses on most days.

- **Texas:** This school, in the same district as the traditional Texas school, added 15 minutes to the student school day on four days of the week in order to earn an early closing on the fifth. A trade-off is that the four-day schedule gives teachers less on-the-clock planning time.

- **Washington:** Once again, this innovative school is in the same district as the traditional school in Washington. Like the Florida and Texas innovative schools, it has introduced a weekly schedule that adds time—in this case nearly one hour for students and teachers alike—on four days of the week in order to garner a large block of common planning time on the fifth day. Planning time in the four-day schedule is somewhat less than in the traditional school.

- **Wisconsin:** This innovative school is a well-established alternative school in a medium-sized city. At the time that it was selected for this study, its daily and weekly level of planning time appeared to be extremely generous compared with national norms. Subsequently, it became apparent that all schools in this district have an equally generous amount of planning time. It is thus not unique in its context, but its flexible use of the available planning time is instructive for others.

Chapter 4

The Structure and Uses of Teachers' On-the-Clock Professional Time Without Students

The previous chapter documented the wide variation in the amount of time during the regular school day and week that teachers in the United States, Japan, and Germany are not directly responsible for students. Even in the small sample of schools in this study, significant differences appear both between schools within a given country and cross nationally. Obviously, however, the time potentially available for instructional planning and preparation tells only a small part of the story. The more important issues concern the structure of that time and how teachers use it.

Bearing in mind that this study draws on data from a very small sample of schools, the following key points emerge:

- U.S. teachers' on-the-clock planning and preparation time most commonly occurs when children are present in the school building.
- Japanese teachers' on-the-clock planning and preparation time nearly always occurs after children have gone home.
- Blocks of planning and preparation time are typically longer in Japanese schools than in traditional U.S. schools.
- Innovative time configurations in some U.S. schools--particularly giving teachers planning time after students go home and creating sustained blocks of time--replicate aspects of the traditional Japanese model.

The Configuration of On-the-Clock Planning Time in U.S. and Japanese Elementary Schools

Calculations of the amount of time that teachers are on-the-clock but not responsible for children included different kinds of time—planning periods, before and after school time, duty-free lunch, and recess time. For the innovative U.S. schools, these calculations also include blocks of time that teachers acquire by banking time on some days to use on another. These time segments represent shorter and longer periods of time, and the length of the segments has a definite bearing on how teachers use it, as well as their perceptions of its utility and purpose. Short segments—under 20 minutes—at least provide teachers with the opportunity to use the rest room, make a phone call, or use the photocopy machine. Longer time segments—a half hour or more—have potential for them to do more substantive planning and preparation, either individually or in collaboration with colleagues. It is the latter kind of time that many teachers feel is in short supply in U.S. schools. A summary of two teacher forums convened by the U.S. Department of Education reported the following:

> Participants insisted that the most important time-oriented change is to create uninterrupted planning periods focused on teaching preparation. Developing lessons, coordinating with other teachers, sharing discoveries about how to teach, integrating instruction across disciplines, and extending the use of resources, all crucial to

improving instruction, take enormous amounts of time, which teachers are being denied (Riley & Dozier, n.d.).

What kind of time without students was available to U.S. and Japanese teachers in this study? Exhibit 11 summarizes the duration and characteristics of planning time segments in the nine U.S. schools.

Exhibit 11
Characteristics of Planning Time in Traditional and Innovative U.S. Case Study Elementary Schools

School	Time Created by Use of Specialists	Banked Time	Time Before and After School	Lunch and Recess
South Carolina-Traditional	40 minutes/day	---	30 minutes	---
Texas-Traditional	45 minutes/day	---	60 minutes	30 minutes
Washington-Traditional	120 minutes/week Joint with other teachers in cluster for 60 minutes	---	60 minutes	65 minutes
Florida-Innovative	120 minutes/day Back-to-back periods All teachers at grade level	60 minutes (Wednesday)	40 minutes	30 minutes
New York-Innovative	45 minutes/day Joint with other teachers in mini-school once per week	---	---	50 minutes
South Carolina-Innovative	80 minutes/day Sometimes back-to-back periods All teachers at grade level at least 3 times per week	---	30 minutes	---
Texas-Innovative	45 minutes/day	105 minutes (Tuesday)	45 minutes	30 minutes
Washington-Innovative	---	270 minutes (Friday)	60 minutes	75 minutes
Wisconsin-Innovative	30 minutes/day	---	90 minutes	45 minutes

In the U.S. case study schools, teachers' on-the-clock time without students before and after school and during lunch or recess generally comes in 15 to 30 minute blocks. Teachers use this time to briefly converse with colleagues, photocopy, straighten up the classroom, and do other chores.[8] There are exceptions, however. At the Wisconsin school, most of the 120 minutes that teachers have for daily planning is scheduled before and after school. At the New York school, some groups of teachers have been able to make more of very limited on-the-clock planning time by arranging their planning and lunch periods back-to-back. Unfortunately, all teachers in the school cannot replicate this schedule.

The more sustained planning time in U.S. case study schools comes from scheduling students to be with specialist teachers and, in the case of three of the innovative schools, banking time. The innovative schools have succeeded in creating considerably more sustained time for planning and preparation than the traditional schools. In several cases, scheduling magicians (usually school administrators) further enhance the value of planning time by ensuring that teachers who want to collaborate have common preparation periods. Banked time is always potentially collaborative since students are not present.

The configuration of Japanese teachers' on-the-clock time without students falls into fewer categories: after school planning time and breaks/recesses during the school day (see Exhibit 12). While some schools have specialist teachers for subjects such as home economics, classroom teachers often have other instructional responsibilities when their students are with these teachers, and in smaller schools, classroom teachers teach all subjects.[9] The variability in the amount of time that teachers must be in school after students go home in the Japanese case study schools is attributable to differences in the official "Go Home" time, which is subject to special conditions at some of the schools (union agreement related to eating lunch with students in Tokyo, the time at which the alarm system is armed in Hiroshima). The time derived from breaks and duty-free recesses for Japanese teachers, as for U.S. teachers, is in brief segments that are primarily useful for doing small chores or personal errands. Unlike most U.S. teachers, Japanese elementary school teachers do not have a duty-free lunch, but they do take a 20-25 minute after-lunch break while students are at recess.

One primary difference in the configuration of on-the-clock professional time for U.S. and Japanese teachers in the study thus turns out to be this: U.S. teachers more commonly experience planning and preparation time while children are present in the building, and Japanese teachers experience nearly all of their time after children have departed for the day. In addition, the blocks of planning time available to Japanese teachers are, on average, longer than the 40-45 minute "prep" periods that are most typical in U.S. schools. Interestingly, the reconfiguration of time in the innovative U.S. schools is actually designed to duplicate one or both of these conditions, although no one at the schools made reference to emulating a Japanese model. Do these factors have bearing on how teachers use and qualitatively experience planning and preparation time? The remainder of this chapter and the chapter that follows provide a deeper discussion of the time crunch in teachers' lives.

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[8] The most recent nationally representative data on the length of U.S. teachers' lunch period indicates mean is 31 minutes and the median is 30 minutes. The length of the school lunch period has steadily declined in the U.S. since 1961 when it was 40 minutes.

[9] The case study of one Japanese school suggests that teachers of grades 2 and 3 have no planning periods during the school day but that teachers of grades 4-6 may have a period or two per week for preparation when students are at music or home economics. The information is not detailed, however, and the other case studies did not mention a similar pattern.

Exhibit 12
Characteristics of Planning Time in Selected Japanese Elementary Schools

School	Time After School	Breaks and Recess
Hiroshima-N	3 days -- 105 min. 1 day -- 60 min. 1 day -- 30 min.	50 min.
Hiroshima-O	1 day -- 165 min. 1 day -- 115 min. 1 day -- 70 min. 2 days -- 25 min.	45 min.
Sendai-W	1 day -- 225 min. 1 day -- 165 min. 2 days -- 120 min. 1 day -- 105 min.	4 days -- 45 min. 1 day -- 70 min.
Sendai-Y	3 days -- 165 min. 2 days -- 110 min.	40 min.
Tokyo-C	4 days -- 65 min. 1 day -- 220 min.	40 min.
Tokyo-H	3 days -- 70 min. 1 day -- 200 min. 1 day -- 140 min.	35 min.

Use of Sustained Planning Time in Selected U.S. and Japanese Elementary Schools

All people have constructs that govern what they can accomplish in a given period of time. If the baby can be expected to nap for two hours, then there is time to shower, fold the laundry, and start dinner. If a meeting won't start for another 15 minutes, there is time to return two phone calls. Teachers' reports of how they use their on-the-clock planning time are replete with judgments about what they can and cannot do in the time segments available to them. Their comments indicate, however, that teachers think differently about what they can accomplish in a given time, depending on whether they work alone or with colleagues.

Individual Preparation Periods

Individual preparation periods—generally about 40 minutes long—are the standard mechanism for providing U.S. classroom teachers with student-free time during the school day. With the exception of the two schools in Washington State, all of the U.S. schools in this study—whether innovative or traditional—provide teachers with at least one preparation period per day while their students are attending a special class. Teachers use these periods to do routine tasks rather than true planning and preparation.

Creative scheduling of preparation periods is one strategy that the innovative U.S. schools are using to make this on-the-clock time more functional. Without actually increasing planning time, they schedule these periods so that same-grade teachers or teachers who work together in a unit, cluster, or mini-school have some common planning time should they wish to collaborate. According to teachers' comments, however, in most schools (both traditional and innovative) teachers usually use this time individually or share it with a particularly close teaching partner:

> Prep time is basically catch-up work. You're trying to pull things together, running papers...I do a lot of hands-on stuff, and we do a lot of homemade books, so that's a time when I get ready. [New York innovative school]

> Four days a week I have prep with the next door neighbor to me. We might run off papers or . . . .we might compose a note to parents—planning [the notes] but not actually writing them because I need quiet and I need time for that. [South Carolina traditional school]

> I don't have the luxury of using that [prep] time to plan. That time is spent taking care of my day-to-day work [South Carolina innovative school]

The data pervasively suggest that, in the U.S. case study schools, teachers do not perceive their single preparation periods useful for long-range planning or tasks that require deep thought or discussion. Teachers are clear about this pattern. "I do most of my planning early morning or at home," said one. Others pointed out that because they must shave off time at both ends of the period to deliver students to and retrieve them from the special classes, the planning time that is available to them is less than it seems. This was a standard rationale for using daily prep periods for administrative or mechanical tasks. In the same breath, however, teachers were likely to note that key planning interchanges often took place on the fly in the hallways.

Spontaneous Planning in Limited Time

Shadowing a teacher in an innovative U.S. school early one morning, a site visitor listened to a 10-minute corridor conversation in which two teachers (1) arranged the logistics for upcoming state testing, (2) discussed several ongoing lessons that they planned to teach, and (3) talked about the roles that student teachers would play in their classrooms. In many ways, this unscheduled meeting produced more decisions than what teachers described as coming out of a typical 40-minute prep period.

Teachers in Japanese case study schools use their longer breaks and student recesses (generally 20 to 30 minute segments) in much the same way that U.S. teachers do. At one school where the interviewer asked several teachers to prepare a detailed weekly schedule, two teachers characterized their "long" (20 minute) break this way:

> Teacher 1: Make copies, miscellaneous paperwork, prepare materials, administrative duties.

> Teacher 2: Grade-level meeting, play/chat with students, grade homework or journals, drink tea, etc.

Group Preparation Periods

Although most U.S. teachers in the study told us that they spent the majority of their preparation periods either working alone or in a companionable but unstructured way with a colleague or two, some teachers did indicate that their school designated specific preparation times for more structured, larger group planning.

When a preparation period is designated for a special purpose involving other people, teachers seem to use it more effectively. A teacher-leader at the innovative school in New York, where teachers have one preparation period per day, described the use of those preparation periods this way:

> During my prep, I'm usually talking to people or preparing my class or getting materials together. . . .Monday is exclusively for our community [mini-school] prep and lunch. Tuesday, Wednesday, and Friday it's usually individual. Thursday is a first-grade planning period [across mini-programs] linked with lunch, for long-range and short-range planning.

This teacher's commitment to using his Monday and Thursday prep periods for group activities means that he and his colleagues do not use this time for copying or making telephone calls or completing paperwork. Because this school has no required before or after school time for teachers, they defer these tasks to off-the-clock time.

The Purposiveness of Shared Planning Periods

One teacher said of her daily preparation periods, "The only real planning that I do is during that day when I'm working with my grade-level during a planning time." Another teacher at the same school, noting that all the first-grade teachers meet together at 12:10 p.m. every Thursday, said, "When we meet as a group, we discuss unit things, or. . . you say, 'Oh, I want to do this. Have you done this particular thing yet?' so that we're getting feedback from each other in what we're doing, and ideas."

At the New York school, creative scheduling by the assistant principal allows each of four mini-schools to share one preparation period each week that is back-to-back with duty-free lunch. This arrangement yields a 90-minute group planning period. The same scheduling technique also creates a once-a-week extended preparation period for grade-level meetings. Site visitors observed some of these blocks in at least two of the mini-schools and documented teachers' seriousness and attention to substantive issues. A teacher itemized some of the topics of recent sessions:

> Lately, lots of political stuff has been going on. We're trying to get [foundation] money to become a semi-autonomous group, which has to be proposed to the district. In the past, [the staff] has coordinated curriculum through the grades. We've done child studies where you take a child with a lot of issues and discuss that child. We also have had meetings about the writing that's going on in the classroom, maybe pick a sample piece and talk about it.

At another mini-school where site visitors sat in on the common preparation period, the agenda included a child study of a disruptive student, discussion of a proposal that the group planned to write,

and planning for a meeting with faculty of another mini-school. A teacher-leader chaired the session, which lasted for about 60 of the 90 available minutes. Observers noted, "Participants seemed engaged seriously, although the questions they addressed were too big to resolve in this session." In a later interview, one teacher acknowledged that holding the meeting midday had been an important ingredient in gaining the cooperation of teachers "who were strictly 8:40 a.m. - 3:00 p.m. people," that is, teachers who were strict constructionists with regard to the union contract.

None of the Japanese schools in the study do group planning when students are in attendance. As noted previously, the tradition in Japanese elementary schools is for teachers to eat lunch with students in the classroom and to oversee the clean-up afterwards. Consequently, there is no possibility of arranging the kind of midday meeting time that seems to work well in a number of the U.S. schools.

Blocked Preparation Periods

This discussion distinguishes between the longer group planning periods just discussed, which are cobbled together from a formal preparation period and teachers' voluntary contribution of their duty-free lunch time, and other scheduling arrangements that give teachers back-to-back preparation periods. At two of the innovative U.S. schools, regularly scheduled segments of 80 to 120 minutes offer teachers the opportunity to do extensive individual or group planning during the school day. *Observations and interviews illustrate, however, that the availability of extended on-the-clock planning time during the school day will not, by itself, change a school's cultural norms. As in shorter, individual periods, many teachers reported that they primarily spend this time working alone.*

At one innovative school, planning time constituted 45 percent of teachers' required school day. Some of that time took place before and after school and at lunch and student recesses. The bulk of it, however, came from a daily planning block. The principal of this school had a vision of a restructured workplace: "My idea . . . was about allowing grade groups to meet together to plan, because when teachers plan together, they catch fire from each other."

On-the-Clock, Blocked Planning Time: An Extreme Case

All second- through fifth-grade teachers at this school have a daily two-hour planning block while their students attend back-to-back classes in some combination of art, music, physical education, and Spanish. (In kindergarten and first grade, students go home at 2:00 p.m., ostensibly yielding these teachers 80 minutes of on-the-clock planning time at the end of the day, although teachers noted that the failure of parents to pick up children promptly often eats into this time.) Teachers reported that they use some of their 120-minute planning block for grade-level or content-area (at fourth and fifth grades) planning and sharing, but the more usual pattern seems to be for them to plan individually. A large proportion of the blocked planning time is devoted to committee meetings, work that at all the other U.S. schools occurs before or after school and off-the-clock.

A schedule of this type may seem like a teacher's dream come true. However, not everyone in the building shared the principal's vision. Interviews revealed that teachers either love it or hate it. One drawback is that classroom teachers must interrupt the block two or three times to escort students from one special class to the next. The more serious, albeit unintended, consequence is that some students receive no academic instruction until after lunch when they begin to tire.

The other school that blocks preparation periods does so occasionally rather than daily. Here, too, teachers have to break away from either their individual or collaborative planning activities to walk students from one special class to another. There does not appear to be a standard pattern for how they use this block of time. Some grade levels set aside one 80-minute block per week for group planning. Others devote half the time to group work and half to individual planning. Nonetheless, according to the teachers, in the course of a typical week, they still use most of their available planning time individually.

Unlike these U.S. teachers, teachers in Japan have no blocked preparation time when students are in school. All of their planning and preparation takes place after students have left for the day.

Segments of Time When Students Are Not Present

All of the U.S. and Japanese schools in the study, with the exception of the innovative school in New York, require teachers to be on the job some amount of time before students arrive and after they leave. In most of the U.S. schools, this time is short—about 15 to 30 minutes for each. Teachers use it to straighten up the room, gather things to take home, confer with a neighboring teacher, make phone calls, and so on. In the Japanese schools, after school time tends to be more substantial. Teachers have a block of planning and preparation time at least one day per week. Some of the innovative U.S. schools have taken steps to establish a similar after-school block of time. Although they do not think of their strategy as emulating the Japanese system, the effect is very similar. The length of these segments ranges from about an hour to as much as 4.5 hours.

Significant blocks of on-the-clock time either before or after school have two notable characteristics. First, as any teacher can attest, there is a qualitatively different "feel" to a school building after children have gone home. There is the opportunity for quiet, relatively long, uninterrupted work that is infrequent in U.S. schools except on rare in-service or teacher work days. Second, in contrast to the time that specialist teachers free up for their classroom colleagues, the entire faculty can take advantage of before or after school simultaneously. The study team was curious about whether this time was structured and used differently than group planning periods or time blocks that occur when students are present.

The largest segment of after-school, on-the-clock planning time occurs at the innovative school in Washington State. This school no longer has specialist teachers. Classroom teachers teach all subjects, including art, music, and physical education. One tradeoff that teachers had to make in the school's restructuring was to relinquish the 30 minutes of daily, on-the-clock planning time that they had when students went out to a special class. However, since most teachers had found this time dysfunctional anyway, they cheerfully swapped it for the present system of four long days in order to obtain 4.5 hours of planning time on Fridays.

Use of a Sustained Block of On-the-Clock Planning Time in an Innovative U.S. School

Given a weekly half-day of planning time, how do teachers use it?

In general, teachers reported, they spend about half the time on team curriculum planning with grade-level groups (horizontal planning). They divide the other half between individual planning time and various kinds of meetings. For example:

- Teachers who are certified in special education meet with other teachers to discuss disabled students' Individual Education Plans (IEPs).
- Mentors meet with first-year teachers.
- Sometimes groups of K-5 teachers meet to discuss intergrade articulation issues or plan activities like "buddy reading" for pairs of older and younger students (vertical planning).
- On the day of the site visit, teachers devoted part of the time to a district-required discussion of scoring rubrics for performance assessments in math.

Compared with the after-school time that they log on Mondays through Thursdays (both on- and off-the-clock), teachers at this very innovative school said that they used their block of Friday afternoon time in a more planned and intentional way. But they had to learn how to do this. One teacher said, "The first year, we constantly had meetings, inservices. . . There was almost never a Friday you had to yourself to do planning." Asked about drawbacks to the current approach to planning time, another teacher said:

> Actually, having planning time clumped on Friday afternoon opened up a whole new world. . .We actually have [several] hours without being interrupted. So instead of using that time during the week for whatever little pieces you plan for yourself, you've got that opportunity to get together with a colleague, and I really like that. But it's a double-edged sword. There are some weeks when our team will look at each other and say, 'I don't want to see you guys today, go away!'

The key here, then, seems to be not just the availability of the block of time but the flexibility to decide how to use it.

Interest in banking time to acquire sustained, on-the-clock planning time has grown in the United States during the past few years. At least two states, Connecticut and Delaware, have held statewide conferences on educational time within the past few months. One of the questions that others always ask of schools that have tried time banking concerns the community's reaction. The school just described abandoned specialist classes and survived on almost no on-the-clock planning time for teachers for a year before turning to time banking. When it took its request to add 45 minutes to the school day four days per week to the community, it agreed to provide after-school student programs on the short day. The principal's entrepreneurship enabled it to follow through with this promise. Even so, in the early days of the innovation, some parents counted cars in the parking lot to make sure that

teachers were not leaving early. Over time, the community accepted the schedule. Eventually, families even lobbied to move the early dismissal day to Friday so they could get an early start on their weekend.

The amount of banked time available to teachers at the school just described is even greater than the time available to Japanese teachers on the one day per week when their students go home the earliest. As Exhibit 12 shows, this time ranges from 3.8 hours on one day at Sendai-W School to 1.8 hours on three days at Hiroshima-N School.

In Japan, teachers spend the time between student dismissal and the official end of their school day for a variety of professional purposes, only one of which is preparing for the next day's classes in the common teacher planning room.[10] One teacher, for example, described the following schedule on a day when his fourth graders left school at 1:30 p.m.:

1:30 - 4:00	Staff meetings; research group meeting
4:00 - 4:50	Prepare teaching materials
4:50 - 5:00	Travel time
5:00 - 8:00	Basic Materials Documents Committee (district-level group that meets twice per month)

Technically, this teacher's work day ends at 5:00 p.m., so his last activity is off-the-clock by this study's definition. The point, though, is that on a day with a long segment of planning time, teachers mix individual and group endeavors in a way that appears very similar to how teachers use banked time at the Washington State innovative school.

At other schools in Japan, meetings seemed to dominate extended blocks of on-the-clock planning time. At Hiroshima-N School, on a day when students were dismissed at 3:00 p.m., a second-grade teacher reported that a 90-minute teachers' meeting took up all of the after school on-the-clock time. The Sendai-Y School, where students are dismissed at 2:20 p.m. on Wednesdays, blocks nearly three hours of time, from 2:30 p.m. to 5:15 p.m., for meetings of various kinds. On other days, the master schedule indicates time for grade-level meetings and individual research.

The other U.S. case study schools that provide teachers with blocks of planning time when students are not present combine banking with daily planning time. Teachers have one or two hours of banked time each week. This time is explicitly designed to support and encourage teamwork and joint planning for curriculum and instruction. Teams in each school, however, vary in the degree to which they use the time collaboratively. While site visitors observed teams who chose to meet and work together on instructional plans during this time, they also saw many other teachers use the time for individual planning.

In the United States, concerns about the lack of on-the-clock time for teachers to engage in professional activities other than instruction are linked with the idea that teachers need time to

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[10] The committee structure in Japanese elementary schools is part of the system of school governance. According to Harold Stevenson of the University of Michigan, a partner in this study and an expert on Japanese schools, teachers bear much of the responsibility for school management.

collaborate with colleagues. The National Commission on Teaching and America's Future states, for example:

> **Restructure time and staffing** so that teachers have regular time to work with one another and shared responsibility for groups of students over time (p. 102).

This is not the place to undertake a history of how teachers' need for more time metamorphosed into their need to spend more time collaborating with colleagues. Rather, the issue is discussed here because in interviews a significant number of teachers conveyed either a strong resistance to collaboration or a defensiveness about the use of on-the-clock professional planning time for individual work. For some teachers, collaboration had become a mantra that they resisted because it did not match their personal work styles. In most cases when this happened, colleagues and administrators appeared to accept the situation. For other teachers, however, collaboration was a frustration and a barrier because they did not know how to collaborate effectively. For example, one teacher who had hoped to use banked time for cross-team planning complained that the time was more often spent for meetings of standing committees that had nothing to do with curriculum and instruction. She and her next door colleague got more done during regular planning periods or at lunch.

On-the-Clock Professional Development

Professional development is one more category of time that teachers have on-the-clock without students being present (a fuller discussion of this topic appears in the next chapter). Many of the efforts to restructure time that are taking place in the innovative U.S. schools fit the definition of "school-based" professional development called for in the National Foundation for the Improvement of Education report *Teachers Take Charge of Their Learning* (1996), which was subsequently endorsed by the National Commission on Teaching and America's Future (1996). According to this definition, planning time—whether collaborative or individual—focuses on student learning, is an important part of the regular school day, takes place on site, and aims to achieve a clear vision.

In all of the U.S. case study schools, some or even most teachers participate in professional development activities outside the school on their own time. Two of the innovative schools are also steeped in strong cultures that give teachers paid, on-the-clock release time to attend workshops or meetings. In one instance, this culture supports school-based, team-based goals. On the day of the site visit, for example, a team delegated one of its members to attend a two-day workshop and bring what she learned back to the team.

In the other school that had a culture of release time, participation in off-campus events seemed random and based on personal preferences and interests rather than on a clear vision of school or even classroom improvement. A number of teachers confirmed that they spend an average of 15 days per year out of the classroom at professional development events. Mainly, they are enthusiastic about these opportunities:

> One of the great things about this school is that we do a lot of workshops. The workshops are mainly beneficial because I can always bring something back.

> I take off and go to the professional development activities because I need the personal and intellectual stimulation.

One teacher, however, fretted about the workshop load ("I've been out a total of 15 to 20 days at workshops. I have not taken a sick day.") and the fact that she often had to attend workshops on short notice, making it difficult for her to prepare adequately for a substitute teacher. Another teacher simply stated that many of the workshops that she attended were "a waste of time."

Allowing teachers to attend meetings or workshops during the school day is not unheard of in Japan and Germany. In Japan, all beginning teachers leave their classrooms frequently to attend lectures, field trips to other schools, and meetings sponsored by the district. Experienced teachers may also occasionally participate in such events. However, since there are no substitute teachers in Japan, if a teacher is absent, that teacher's classroom must be covered by administrators or a teacher with a free period or by doubling the class up with another at the same grade level. Interviewees in Japan indicate that teachers often feel tremendous guilt about imposing in this way on their colleagues.

Continuing education classes for teachers in Germany take place both during the school day and in the afternoon and evening. About the classes offered during school time, a teacher in Frankfurt said, "Hardly anyone takes advantage of [professional development]. It would make average school days difficult if everyone did it." A teacher in another Frankfurt school said that his participation in on-the-clock continuing education classes depended on the grade that he was teaching. First graders, he felt, are too dependent to allow their teacher to leave them for a one-week professional development course. Fourth graders, on the other hand, are being prepared for the important decision about which track they will follow into the next level of schooling. Therefore, this teacher participates in continuing education when his student are in second and third grades.

Several German teachers indicated that they themselves provide continuing education and miss some days or parts of days with their classes to offer workshops at other schools or at the state center for continuing education. Often, these workshops only require the teacher to be away from the school an hour or two, and colleagues willingly cover their classes for this limited time.

Conclusion

The structure of on-the-clock planning time in the U.S. and Japan case study schools is in some ways quite different. Most of the U.S. teachers in this study have planning time during the student school day. This is possible because students spend instructional time with specialist teachers. Japanese teachers, on the other hand, do nearly all of their planning after students go home. On some days, the planning segment may be quite short; on others, it is longer.

Despite efforts in a number of the U.S. case study schools to schedule longer, on-the-clock planning times so that groups of teachers can work together, not everyone has learned to use this time effectively. Many still work alone or with a friend, as teachers have done for years. Teachers appear to use shared planning time more efficiently when it has a specific purpose, such as providing time for a grade-level or team meeting. At Japanese case study sites, most teachers' on-the-clock planning time after school seemed to be taken up with these kinds of purposive meetings rather than with individual planning.

Chapter 5

Improving the Quality of On-the-Clock Professional Time: What Can the Innovative U.S. Schools Teach Us?

So far, this analysis has concentrated on the different kinds of on-the-clock professional time available to teachers in the United States, Japan, and Germany, first in Chapter 3 at a gross level of total time and then in Chapter 4, breaking student-free time down into structural types to examine their uses in different countries. This chapter specifically looks at the innovative U.S. schools, comparing and contrasting their use of on-the-clock professional time with traditional time structures in the United States, Japan, and Germany. It also looks at the overall character of the schools and the contributions that time factors make to establishing them as functional learning communities.

All of the innovative U.S. schools in this study are very self-consciously trying to create a different and more effective teaching-learning environment. They experiment with new ideas, new organizational structures, and new approaches to teaching and learning. Manipulations of time are only a piece of a complex puzzle that faculty and administrators are trying to solve. In the educational jargon of the day, they are attempting to both restructure and reculture school—move around the furniture and the behavioral norms. In Germany, a comparable movement is taking place in the untracked *Gesamtschule* (comprehensive school). These schools, for students in grades five through ten, enroll students of all achievement levels, in contrast to more traditional German schools that isolate students by college track, middle track, and lowest track. Nine percent of German students now attend them.

Key Dimensions of Effective Time Use

Looking at the innovative schools holistically, each has a unique ethos (which is not to say that the traditional schools do not have character, because they certainly do). They are mostly (but not entirely) positive places for both teachers and students. Often, the structure of time is at least partly responsible for this. The study shows that there are several key dimensions of time that seem to correlate with organizations where students are learning and teachers are happy to work. These include:

- **Control over time:** No matter what, time is the enemy, but controlling it rather than being controlled by it makes a noticeable difference in the morale of a school.

- **Flexibility in the use of time and other resources:** Bureaucracies, which education systems are, seek to routinize business in the name of efficiency and fairness. From the perspective of daily teaching and learning, however, schools and classrooms are less bureaucracies than they are organic systems that thrive when they are allowed to adapt to meet perceived needs.

- **A balance between the needs of the individual and the needs of the group:** This applies to both the collegial culture among teachers and the teaching-learning culture within classrooms. The uses of time must accommodate both kinds of needs.

- **A culture of professionalism:** Teachers are trusted and take responsibility for making the key decisions about teaching and learning.

- **A focus on students:** The entire enterprise of the school revolves around student success.

These five factors come together in the work of the United 2-North, as one team of teachers is called, in the innovative school in Wisconsin.

A Morning in the Life of the 2-North Unit

The 2-North Unit is one of four teacher teams at a 20-year old alternative school serving students in grades K-8. The unit has about 100 students in grades 6, 7, and 8, four classroom teachers, a special education teacher, and access to aides and other support staff as needed. It is located in adjacent classrooms in one wing of an older, four-story building that formerly housed a parochial school. Three of the teachers in the unit, with the principal, conceptualized and founded the school.

Early on a February morning, an hour before classes started, teachers in the 2-North Unit were closeted in a small room reviewing a sex education videotape that they were thinking of using with their students *(culture of professionalism)*. No definite decision reached, they moved to their classrooms at the appropriate time to greet students and take attendance. All members of the unit (students included) then gathered in one classroom, sitting on chairs, tables, and the floor, to go over the day's schedule. The complexity of who will go where and when is mind boggling to the observer but obviously perfectly clear to teachers and students.

As the morning progresses, students and teachers move from classroom to classroom and activity to activity in a seamless progression of time that is governed by custom, not bells *(flexibility)*. There is never a time when one of the unit's four classrooms is totally empty, but there are numerous occasions when the student-to-teacher ratio is very low: three adults (classroom teacher, special education teacher, and paraprofessional) and 10 students working on a math assignment, two adults and six students working on independent projects *(needs of the individual, focus on students)*. At some points, observers note small clusters of students talking and working quietly in a corridor area equipped with tables, chairs, and bookshelves. At another time, one teacher provides direct instruction in a literature lesson to a large number of students while another unit teacher, alone in her classroom except for two students working independently, sets up a hands-on nutrition project. The literature teacher reports that he often conducts lectures and large group discussions for all unit students while his colleagues grade writing assignments or prepare lessons in other subjects *(needs of the group)*.

Although the teachers in this unit have an official 30-minute daily planning time when students are scheduled with a special subject teacher, the use of time is fluid, dictated by student and teacher need rather than the master schedule in the office. When it is time for music in one classroom, two teachers decide instead to each send half of their students to the music teacher, keeping the other half back for intensive small group work *(control over time)*. Specialist teachers are attuned to this system and know that the missing students will attend their classes at another period scheduled for their grades. The special education teacher assigned to the unit floats between classrooms, providing one-on-one assistance to students and conferring with classroom teachers.

The school where Unit 2-North is located epitomizes an organizational culture where time is always in short supply. At the same time, it no longer fits the National Commission on Time and Learning's prison metaphor for dysfunctional uses of time in American education (National Commission on Time and Learning, 1994). Bus schedules still dictate the school day. Within that constraint, however, the faculty control the use of time and mold it to fit the circumstances of a given day. The school has a child-centered philosophy and a strong tradition of professional collaboration, reflection, and growth. It is also a school of choice for both students and teachers. Some would argue that this allows teachers and administrators to bend the rules and regulations governing time use and other organizational variables that restrict other public schools. This study did not examine how much autonomy to innovate other schools in this district have. The study team was told, however, that over this school's 20-year history, the community has tolerated the school but never looked to it as a model of creative practices that it might replicate or adapt elsewhere in the school system.

Unit 2-North includes the most experienced innovators in the most established restructuring experiment in this sample of U.S. schools. The use of the term "restructuring" rather than "restructured" is deliberate. Even after 20 years, the school views itself as a work in progress, and staff vigilantly search for new ideas and strategies to improve student outcomes and school functions.

Some of the ideas that this alternative school has adopted resemble procedures in some of the Japanese schools in this study. There is, for example, a common planning room for teachers—a double classroom crammed with a desk for each faculty member. This arrangement, however, has met with only partial success. The unit whose classrooms are closest to the common room makes liberal use of it for team planning meetings. Other teachers make some use of it, primarily for individual planning or as a lunchroom, but many teachers rarely set foot in it, preferring to plan in their own classrooms or the rooms of other teachers in their unit.

This Wisconsin school is located in a city with strong German roots. Indeed, the state of Wisconsin as well as local school districts have often looked back to Germany for ideas on improving the education system, such as youth apprenticeship. One interesting parallel between the German elementary schools and this U.S. school is the use of part-time classroom teachers. At the time of the site visit, two young mothers shared one full-time third-grade teaching position, each teaching part-time, a pattern that is far more common in Germany than in the United States. It is unclear how prevalent this practice may be in the United States, but in all likelihood it is largely confined to teacher specialists and generally discouraged as a staffing arrangement for regular classroom teachers.

With the profile of the Wisconsin school as an exemplar, this study now examines each of the key dimensions of time use that emerged from cross-site analysis as an important variable in balancing on-the-clock instructional and professional time.

Flexibility in the Use of Time and Other Resources

In the description of a morning with Unit 2-North, it is clear that time is flexibly structured. There is a schedule for the day that outlines relationships among when, where, and who. It is equally clear that the schedule leaves ample room for teachers to make professional decisions about the use of their own and students' time. In short, the day is organized and not chaotic. The structure is flexible and responds to the needs of teachers and learners.

Further, for both teachers and students, the day contains a mix of large group, small group, and independent work, so flexibility is a matter of space as well as time. Large groups must assemble punctually in a specific classroom. Small group and independent work can move to a computer, the library, a nook, or a table. Several configurations can form and reform within the 40-45 minute class period. For teachers of volatile sixth, seventh, and eighth graders, flexible time provides teachers with the particular advantage of letting them change gears to defuse small irritations and problems before they escalate. In this particular teaching team, planning and preparation take place whenever they are needed, sometimes with students working independently somewhere in the room. Teachers do larger team planning tasks before and after school, both on- and off-the-clock.

There are variations on the use of flexible time in other U.S. schools that are successfully restructuring. Usually, that flexibility developed as the result of working toward some other goal of a change process (e.g., smaller classes, multi-age classrooms, teaming). As teachers gradually became comfortable with professional collaboration and arrived at some "Aha's" about informal ways they could free up time for each other, they incorporated them into their school day.

At the innovative school in Washington, every full-time staff member, except the principal and an English-as-a-second-language instructor, is a classroom teacher. This brings the average class size down to about 20, a level that teachers say allows them to pay attention to individual student differences. The interesting thing is that, with growing experience in managing their school's time, resources, and program, teachers at this school now routinely double up classes in order to free each other up for some planning time in the course of the school day. It is not unusual for teachers to cheerfully work with groups of 40 children for some segment of the school day—a circumstance that would likely have resulted in a grievance if imposed from a higher level in the system. As an artifact of their own flexible decision making, however, most teachers willingly accept the practice of sometimes forming very large instructional groups.

Similar grouping patterns occur at other schools as well. Teams of three teachers often arrange for two of them to manage a super-group activity for three classes of students, allowing the other teacher to prepare for an upcoming lesson. These kinds of arrangements happen spontaneously within the team; no administrator has to approve them.

Small group and whole class instruction have been the staple organizers in U.S. schools for many decades. The addition of super-groups to the repertoire as a means of meeting some team

objective departs significantly from the norm. It is reminiscent of what happens in Japan and Germany when a teacher must be away from the classroom for a few hours or a few days. There, too, colleagues pitch in under the assumption that the same will be done for them when the need arises and that the temporary inconvenience or change in plans is ultimately for the good of students.

Several of the U.S. schools can be flexible in their use of teachers' time and their daily mix of student instructional groupings because they have extra human resources, many of whom work directly with students in small groups or one-on-one. This makes it easier for teachers to double or triple up classes to gain *ad hoc* planning time. The additional hands include student teachers, AmeriCorps members, university faculty, community volunteers, recreation department staff, and others.

The kinds of flexible on-the-clock time use described in this section have become possible in some U.S. elementary schools because of state and district policies on site-based decision making or management. If these schools are in any way representative of a trend, there has been discernible movement in the past decade toward devolution of authority downward in the system and a reduction in the top-down regulation of schools' day-to-day affairs. One result has been to give teachers control over the use of time.

Control of Time

All of the U.S. schools in this study—traditional or innovative—have a considerable degree of control over most aspects of school life: curriculum, instruction, assignment of students and teachers to classrooms, teaming arrangements, professional development, recruitment and hiring of staff, and, in a few cases, even the entire school budget allocation from the district. This control means that faculty and administrators decide the structure of on-the-clock time over the course of weeks, months, and the school year. Individual teachers or teams make their own daily decisions about time use within some constraints imposed by fixed lunch schedules and, in most of the schools, teacher specialists' schedules. In some schools—those that Fullan (1993) would call truly "recultured [11]," control over time also has a psychological dimension that contributes to an overall positive atmosphere.

A teacher at the Goals 2000 Teacher Forum who has taught in two national cultures had an important insight about the control of time:

> In West Africa, the idea is that we are masters of time. In the United States, we are controlled by time, but many things are not done on time. (*Breaking the Tyranny of Time*, p. 20)

In every school, there is a tension around time that is unavoidable. The distinction lies in the apt use of prepositions by the teacher quoted above: control *of* time versus control *by* time. At the school where staff decided to bank time to create a full half-day per week for planning, teachers spend a long and intense time with students on other days of the week. One might think that this would produce stress on the atmosphere. It does not. Similarly, at the K-8 alternative school where teachers routinely forgo

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[11] Fullan distinguishes between restructuring (change in timetables, roles, and decision-making processes) and reculturing which involves radical change in what is taught, what is assessed, and how people work together, (Fullan, 1993).

planning time during scheduled specialist periods to work with small groups of students, teachers might be harried by the lack of a real break in student-teacher contact. They are not. Why is this?

The theory is that by placing control of decisions about time into the hands of those directly affected by the decisions (in these instances, teachers and students), the sense of being controlled *by* time abates. The stress goes out of the system, and the result is a vastly more relaxed, functional and productive organizational culture—despite the fact that many time pressures remain. Consider this scenario from field observations:

> A teacher has been introducing the concept of prime numbers to his fifth and sixth graders. The time for art class approaches, and the teacher realizes that he should summarize and wrap up the lesson. "Do you get it?" he says. The student responses are a mixed bag—some do, some don't. "Who would like to stay here and work on it some more?" Several students indicate that they would.

In this example, teacher and students have made important instructional decisions. The teacher has volunteered to give students time that is technically allocated to other purposes (i.e., planning). The students have decided on math over art. No one senses that something punitive has happened, as would be the case in many schools—"You'll have to miss art, and I'll miss my break, because you weren't paying attention!" On another day under similar circumstances, the teacher might make a different decision and so might the students. The point is that they rationally control their time and how to use it rather than having it be controlled by some arbitrary, external mechanism.

Most of the schools in this study, however, have not yet reached a stage in restructuring or reculturing where tensions around time fade into the background. In the school where teachers have the highest proportion of on-the-clock planning time, creating that time drives all decision making, often in educationally nonfunctional ways. Elsewhere, site-based decision making gives teachers planning time, and they rigidly adhere to it because they are not yet regularly asking themselves what the best use of time would be given the particular instructional circumstances of that day.

The range of time restructuring practices in this study demonstrates that gaining control of professional and instructional time in schools progresses through several stages. At a mature stage, time is still a problem, but it is an individual problem, not an organizational one. The data from Japan and Germany do not allow the study team to draw any conclusions about teachers' control of time in the way just discussed. Teachers in both countries said that they have decision making autonomy in their classrooms, but no observational information exists to help explain precisely what this means. Scheduling data suggests that in both countries the clock controls the elementary school day. It is not clear, though, whether teachers may, on an *ad hoc* basis, decide to double up a reading period on one day and a math period the next.

Balancing the Needs of the Individual and the Needs of the Group

American education is notorious for its susceptibility to fads. An idea developed through long, hard work in one place receives some good press and then abruptly spreads. Its dissemination is based on breadth but no depth. And then the innovation meets an early demise. Observations and interviews for this study suggest that "collaboration," a key goal of increased, on- and off-the-clock professional

time, may be in some danger of becoming yet another of the fads that come and go in many places if school officials fail to pay sufficient attention to individual teachers' needs and preferences for planning time.

Drawing U.S. teachers out of their isolation in traditional classrooms is a key construct of restructuring schools—and sensibly so. Substantive professional discussion, developing shared goals, and drawing on complementary strengths can only improve the experience of being a teacher and students' educational outcomes. However, as already apparent from some schools in this study, it is important to guard against a culture of collaboration for collaboration's sake and any tendency toward a counterproductive "us" (very collaborative) and "them" (not collaborative) situation.

School principals really brought this dimension to the fore. One said, "We're like-minded in the fact that we all support the vision and the model. We're very, very different in how our classrooms look. . . .we have consensus on where we want to be and because of that, we can get very diverse opinions on strategies to get there, but we don't have philosophical, gut-wrenching anger."

At another school with a strong tradition of collaboration, the principal described how she nearly created damage to faculty cohesion by asking teachers, "Are you a classroom teacher or a program teacher?" She meant "classroom teacher" pejoratively, as "someone who does not view the whole organization as being something they support." Periodically, that distinction comes back to haunt her as teachers associate her words with individuals and teams that are more or less collaborative. Today, she goes out of her way to recognize and express appreciation for the work styles of all teachers. The teacher who spends most of her time working alone, collaborating with other teachers primarily on field trips and special projects, is just as valuable as the teaching team that meets every afternoon.

Each of the innovative schools and two of the three traditional schools in the United States had at least one teacher who, with just a little edge of defensiveness, admitted to preferring individual planning and preparation. These teachers support their school's vision and goals, including the need for some collaborative work, but their primary style is to work alone. In some instances, the principle of collaboration could jeopardize the overall school improvement effort if forced upon teachers who had a different working style.

A Culture of Professionalism

Education bureaucracies do not always treat teachers as professionals. Nothing attests to this more than the frequency with which teachers respond positively to an event or a person because "we were treated like professionals." They would not express such a sentiment if they had not previously experienced condescension.

A number of U.S. teachers interviewed for this study commented that a culture of professionalism was an important feature of their school. Teachers in innovative schools particularly expressed this. Having greater control over their time and being able to use it flexibly indicated to them that they were perceived as mature, experienced professionals who could be trusted to make important decisions:

> This school really makes me feel like a professional. I don't know how I would feel in another school because I think a lot of that comes from administration. . . . they make me feel that it is important to keep learning and that they respect that. . . .I feel that to be a true professional, you need to stay up with what is current.

Another indicator of professionalism in many of the innovative U.S. schools was teachers' level of discourse about teaching, learning, and curriculum. This is an area in which teachers in Japan and their American counterparts are often compared. Japanese teachers have a tradition of "regular and frequent meetings in which teachers talk about their lessons and their practice in very specific terms." When a developmental psychologist at the University of Michigan who is highly familiar with Japanese schools undertook a project to replicate the Japanese type of discussion with American elementary school teachers, she found that:

> . . . .the teachers were not accustomed to reflecting on their teaching and did not have the analytical tools to do so. Discussing their teaching generally meant talking about which kids were having a hard time learning—or, sometimes which parents were being a nuisance. These were very real problems for the teachers, but they were not related to how math concepts were being taught or where the kids were running into trouble understanding them (Reecer, 1995, p. 31).

Some teachers in the innovative U.S. schools are learning how to hold Japanese-like discussions about curriculum and instruction, sometimes on their own and sometimes with a facilitator such as a university faculty member. For example:

- A classroom teacher in Washington talked about her personal interest in Howard Gardner's theory of multiple intelligences and the opportunities that she has had to share this theory with her colleagues in the context of restructuring their school around multi-age groupings and full inclusion of special education students. As a result, many teachers at the school are more conscious of varying their instructional strategies.

- In New York, a teacher talked about a research project that he and his team colleagues conducted that focused on students' independent reading: "We observed a student once a week for two months, then discussed what we saw. We found categories of behavior that we hadn't noticed before."

- Teachers at the innovative school in Texas may opt to participate in an action research project where they work with a university-based research partner to formulate a research question concerning curriculum, instruction, or assessment. Data collection occurs in their own school. One group was investigating the effects of a double dose of reading instruction. Another was exploring resiliency factors that help some students overcome significant obstacles to success.

Many U.S. teachers sense that the public and their elected representatives at various levels of educational governance believe that the only time that matters is teachers' direct instructional time with students. Yet teachers know differently. High quality instructional time with students requires time for teachers to plan, prepare, and reflect. Many teachers would like more of this non-instructional time to be recognized as a legitimate professional activity in their contracts, without reducing their instructional

time with students. The evidence in this study indicates that teachers respect, value, and make good use of their on-the-clock time when they are not instructing students. There is, of course, a learning curve. For example, Japanese teachers would be the first to acknowledge that learning how to analyze curriculum and instruction to improve one's teaching does not happen overnight and is really never finished.

Professionalism in Japan: A Constant State of Becoming

A teacher with seven years of teaching experience in Sendai talked with an interviewer about his "embarrassment" about the poor quality of his teaching in the early years. He attributed the improvement that he has made almost entirely to opportunities to interact with colleagues, both teacher-leaders and peers who were struggling as he was. The system in his district was generous in providing time for him to develop into a professional with confidence that he teaches well. He also acknowledged that he still has much to learn.

One can argue that, in the three countries examined for this study, the culture of professionalism is strongest in Germany. Teachers in Germany are so highly trusted to act responsibly and professionally that they conduct up to half of their paid work time completely out of public view in their own homes. The findings from the three German case studies imply that one trade-off for this kind of trust may be the lack of feeling among teachers that the school is a learning organization. The most important "system" in German education is a self-contained classroom. Most educational reform agendas in the United States aim to change aspects of U.S. tradition that are similar to the German model in this respect.

Focus on Students

Early studies on the results of site-based management or decision making often reported disappointing results (Wohlstetter and Mohrman, 1996). In learning to become self-governing, U.S. schools often lost sight of improved student learning as the reason for restructuring in the first place. Happily, the evidence from this study suggests that (1) rocky starts do not deter districts and schools from site-based decision-making and (2) teachers and school administrators have developed strategies to share management responsibilities and keep the focus on students, with positive results.

The evidence further points out that restructuring the use of time in schools can be a powerful tool in the school improvement process. However, time itself cannot be the goal. Time must serve in a supporting role, with a vision or belief system about improving student outcomes taking center stage. The vision or belief system must be evidence-based, the faculty must understand and endorse it, and it must be subject to frequent re-examination and high standards of accountability. Most importantly, it must place strong emphasis on academic instruction.

With one notable exception, both the innovative and traditional U.S. schools are succeeding with their students, producing test scores that are generally at or above district and state averages. By virtue of their strong student performance, several schools have earned special status through state or

district accountability systems, receiving monetary rewards, waivers of regulations, and designation as schools where other educators might come to observe good practice. What's more, some of the schools accomplished this amid their struggles to meet the academic needs of a changing population. In fact, several restructuring efforts are predicated on faculty recognition that conventional approaches to teaching and learning do not work for students coming into their classrooms today—whether that means new ethnic groups, children from single-parent families, or the technologically sophisticated children of the 1990s.

The study team visited only one U.S. elementary school where children, on average, are achieving poorly. The school serves an extremely needy population and has many extra resources to help it succeed. The fact that it is not doing so appears related to two factors. First, the school's restructuring effort is focused on adults' rather than children's needs. The school's schedule ensures big blocks of planning time for teachers, but, as a result, some primary grade students receive no academic instruction until after lunch. Second, the central organizer for school change is a program that emphasizes self-esteem and being a responsible member of the community. Obviously, self-esteem can spur intellectual growth and achievement, which is what the program's developers intended. In this school, however, faculty focus on "fixing" students' underdeveloped social skills such as kindness, fairness, and caring as a precondition to holding students to high academic expectations. This is not unusual. There is a strong tendency in the United States for teachers of young children to characterize their professional roles and motivations in affective and developmental terms. The study team asked teachers to complete the sentence "A teacher in this school is a person who. . ." and, from the majority, got fairly predictable results:

. . .creates a safe, caring environment for children
. . .is really interested in the development of kids
. . .is a caring, benevolent sort of person
. . .is a nurturing person

There are teachers, however, who highly regard their responsibility for children's cognitive development. The teacher whose statement follows indicated that recent restructuring activities had shifted her view of her professional role:

> I think that a teacher is a person who cares an awful lot about kids. I think we care more about kids than program, and we've tried to bring our program in alignment with that caring about what's best for kids.

Asked the same question, some German teachers focused even more on affective and developmental issues than their counterparts in the United States:

> I want school to be fun for children, so they won't be afraid.

> I want to give students help. . . .not just stuff them with subject knowledge but simply to accompany them as they learn how to find their way in the world.

> First of all, I want to give my students a pleasant time in school.

Now I know that comfort things, such as eating breakfast slowly, music, art in class are at least as important as conveying knowledge.

Other German teachers, however, declared that their priority must be on academics because that is what parents want, even though their own preference might be for a more nurturing role.

Nearly all of the Japanese teachers interviewed expressed responsibility for developing both academic and social skills. This reaffirms well-documented observations by U.S. researchers about the time that Japanese schools devote to inculcating good habits and being a good group member. One Japanese teacher explained:

- I think teaching is a rewarding profession. My interaction with students affects them in areas of knowledge and also in how they feel and react to things.

Nevertheless, the strongest themes to emerge about Japanese teachers' focus on students is their enjoyment of children and the contrast between teaching and the nature of work in the corporate world:

- There is a lot of fun in teaching. I like kids.

- I worked at an office and did desk work for a while before I became a teacher and became bored because of the monotonous nature of the work. I became a teacher expecting that there would be more variety in my work and found too much variety instead!

Most teachers interviewed in all three countries are committed to their students and their profession. Nonetheless, some, particularly in Japan, depict an environment that does not appear to be as positive as the picture Americans have of Asian education systems. Interviews with Japanese teachers elicited the following quotes:

- Work seems to be the most important thing for some teachers at this school. These teachers often stay at school a lot later than me and ask me, "Are you leaving already?" I always want to ask back, "Why are you still working?" But I don't think that way. The only way I can teach my students well is when I educate my own children well.

- Official paper work comes first, because if I don't do my share, the entire division would suffer. Research projects are also important. Although it may seem like my priorities are mixed up, things related to the classroom usually come last.

- I am not satisfied with the present work conditions. I think teachers need to get paid more. I feel overwhelmed and rushed every day. I need more time and room to relax. Since I cannot satisfy myself at work or home, I feel distressed and incomplete.

- When I first started, I hardly ever took time off, and I strived never to take any paid vacations. Now, after all that I have been through, I think it's stupid. I take off when I want. [Asked if he ever has days when he would like to stay home, he replied, "Yes, every day."]

These are fairly extreme comments, and may or may not be representative. They do raise a question about whether Japanese teachers are experiencing professional discontent and a shift away from student success as their first priority.

Several teachers remarked that, in light of changing social conditions, the tradition of teachers having a nearly parental role may have outlived its utility. One teacher said, "I think Japanese schools overserve students' lives outside of school." Many teachers commented on the increasing tendency of parents to abrogate their side of the joint parenting agreement. Others found an increasing clash between the school's obligation to socialize children and Japan's trend toward smaller families and more individualism:

- Many children have grown up being able to voice their opinions and many tend to display individualistic tendencies. That's fine, but some of these children have a hard time taking into consideration the feelings of others. . .I feel that these children tend to be a good child at home but become selfish at school.

- Basic child rearing principles seem to have changed a lot, and some families don't even have any.

A few German teachers articulated similar disenchantment with their vision of teaching and their day-to-day activities, for example:

- What I originally thought about what one does in the school, namely that one actually communicates some material to the students—I find that this becomes more and more just socialization.

Generally speaking, however, new societal conditions seem to perplex teachers in the United States and Germany less than their Japanese colleagues. Many U.S. teachers, in particular, have worked through a counterproductive stage in educational history that blamed students for lack of achievement. In interviews for this study, very few U.S. teachers wasted time bemoaning student weaknesses. Rather, they told the study team about reviewing and adapting their practices to meet children's needs and improve academic outcomes. In this regard, the United States may be ahead of a wave that will engage other, less diverse Westernized nations in the 21st century. In the U.S. schools visited for this study, words and actions definitely focus on helping *all* children achieve to their fullest potential.

Summary

This chapter described five principal dimensions of time that contribute to improving school operations, at least in the United States: (1) control over time; (2) flexibility in the use of time and other resources; (3) balance between the needs of the individual and the needs of the group; (4) a culture of professionalism; and (5) focus on students. It discussed these dimensions through examples of practices in U.S. schools and, where relevant, in Japanese and German schools. In many ways, the principles are simply common sense, but it is easy to lose sight of them when the system aggregates up from the school level to policies that cover whole districts and states and even nations.

Michael Fullan and Andy Hargreaves of the Ontario Institute for Studies in Education are keen theorists of educational reform. "Restructuring" and "reculturing" the school as an organization are terms and concepts that both have developed and ultimately critiqued in their writings. In their most recent work (OISE, 1997), however, they suggest that the slow and discouraging pace of educational reform in the United States and other countries may be tied to the failure to adequately address issues of individual and organizational emotional health. The evidence in this study suggests that if the five key dimensions of time use are in balance, they can contribute significantly to a school's overall emotional health. Control over time is especially critical to ease the stress that comes with not having enough time.

The next chapter examines the work that teachers do—whether at school or elsewhere—that is off-the-clock.

Chapter 6

Above and Beyond: Teachers' Work Off-the-Clock

Strong traditions within the teaching profession keep teachers engaged with their work far beyond the contractual work week. Nationally representative teacher surveys estimate that, on average, U.S. teachers contribute 11 hours a week of their own time to their job (NEA, 1997). Since this is an average, it includes some proportion of teachers who work their contract day and no more, but at the other end of the spectrum are teachers who contribute 16 hours or more per week of off-the-clock professional time to reach the standards of planning and preparation that they impose on themselves.

Traditions in the teaching profession are similar in Japan, where teachers may log even more off-the-clock time than in the United States. Experts on Japan's work culture note social pressure to work long hours in most Japanese occupations, including teaching. One interviewee commented that if you are traveling by subway and see a woman with a bulging briefcase, you would conclude, "Oh, she is a *sensei* (teacher)!"

This chapter examines what U.S., Japanese, and German teachers say about their off-the-clock work. It discusses three types of off-the-clock work in which most teachers participate: (1) planning and preparation; (2) meetings and committees; and (3) professional development activities.

"Off-the-clock" means any time that teachers engage in professional activities beyond the time that they must be at school. This is a distinction that U.S. teachers make in their own minds. Japanese and German teachers' definitions of off-the-clock may differ in some respects. For example, attending meetings that run beyond the school day may be viewed as on-the-clock in those countries. This study, however, makes the rules for assigning time to one category or the other black-and-white in order to simplify the international comparisons.

The data in this chapter are anecdotal, based on observing and interviewing limited numbers of teachers and school administrators. There is no pretense or claim that the teachers interviewed were representative of their colleagues in a school or country. Nor should readers in any way regard generalizations about issues such as when most teachers arrive at and leave school as "statistics."

Key findings in this chapter from case study schools include the following:

- U.S. and Japanese teachers report similar patterns of off-the-clock work. They stay an hour or so beyond the official end of the work day and do some work at home.
- German teachers think of the intensity of their off-the-clock work in terms of periodic tasks to be accomplished (e.g., preparing report cards) rather than the time they put in.
- Japanese teachers are especially burdened with committee work and meetings during on-the-clock time, which pushes more of their planning and preparation work off-the-clock, despite their longer official work day.

- Professional development or continuing education activities are part of the professional teaching culture in all three countries, but participation levels appear to be lower in Germany.

After School and Out-of-School Planning and Preparation

No matter how efficiently teachers work on-the-clock when no students are present, most of them cannot get done the myriad tasks—large and small—that make the instructional day go well. Teachers are, therefore, often in the building early, late, or both and, by their own reports, at their desks at home into the evening, on weekends, and during vacations.

U.S. Teachers

During site visits to U.S. schools, the study team made a point of arriving at the school well before the beginning of the student school day and remaining for at least an hour after students had gone home. They observed teachers generally arriving at school between 20 and 60 minutes before students. After-school, buildings often emptied within 30 to 60 minutes of student dismissal. This, however, did not necessarily signal that everyone had gone home. After-school professional responsibilities frequently took teachers to other venues.

Age and career stage have some bearing on the amount of time teachers put into planning and preparation, as do the intensity of reform and restructuring activities at the school and the school calendar. Most teachers, for example, put in more off-the-clock hours at report card time. A novice teacher said:

> "....so far it has not been a problem for me about only being paid for seven hours a day, and I do like maybe 14, 15 hours a day of work, because I love it, and I want to be the very best I can."

More experienced teachers tend to spend less time on daily planning and preparation. At mid-career, when teachers have children of their own, other obligations limit the time they can commit to before- and after-school activities. Their skills in working with children make them logical choices to lead scout troops and coach Little League teams. They have child care pressures and home responsibilities, including seeing to it that their own children do their homework. Generally speaking, the least experienced teachers and the most experienced (those whose families are grown) reported spending the most off-the-clock time on planning and preparation activities.

Teachers do not restrict their planning and preparation time to the work week. Many U.S. teachers reported that they spend several hours each weekend on school-related work, both at the school building and at home. For teachers with children, weekend hours offer the opportunity for a spouse to be in charge, freeing the teacher to catch up on grading papers, changing bulletin boards, or developing new instructional materials. One teaching couple reported that on most Sundays, they bring their young children to the school with them and spend several hours at work. At another school, a teacher talked about spending some weekends on retreats with colleagues from her mini-school. These retreats are entirely on teachers' own time and out of their own pocket.

U.S. Teachers Speak Out About Their After-School Work

Florida:

"Most of the time I leave about 4:00 p.m. [students leave at 3:00], but many days I stay until 5:00 or 5:30 p.m. I don't take work home, so I'd rather stay to finish it here."

"I always do my plans at home, because I get interrupted in school a lot....I don't mind working at home because I have the time and it interests me and my kids are grown."

New York:

A fourth-grade teacher said that she arrives at school at 7:00 a.m. three days a week and stays until 9:00 or 10:00 p.m. one day and until 6:00 p.m. another day or two. If she leaves before 6:00, she may do another two hours of work at home. Sometimes she works on weekends too, but not regularly.

South Carolina:

"Last week and this week, I had a teacher forum meeting, a grade-level planning meeting on Wednesday, and a social studies liaison meeting today. I'm taking a class on Mondays. I had two parent conferences after school last week [and] I have one after school tomorrow.... So there's always something.... Typically, I put in anywhere from two to four hours per day [off-the-clock] and probably about six hours over the weekend."

Texas:

In a three-teacher team, one teacher arrives very early in the morning and leaves relatively early after dismissal. The other two teachers usually stay until about 5:00 p.m. "We have a routine after the kids leave." The team tries to be efficient so that they do not have to take work home. What they do take home tends to be professional reading, looking for new ideas.

Washington:

"I'm usually here until 5:00 or 5:30, cleaning out my mail box, seeking out resources for curriculum, trying to find services for kids.... What I tend to do is work like heck for a week building a unit, and then I can get two or three weeks out of that unit where I'm just fine tuning it at 7:30 in the morning or at 3:30 in the afternoon."

Despite public perceptions about the annual teaching cycle and the extensive vacation time that teachers get, many teachers use their long summer break to get ready for the year ahead. One principal noted that teachers spend several hours two or three times a week during summer vacation at school. At most schools, teachers reported spending some voluntary vacation days planning with their teams or getting acquainted with new instructional materials.

For the most part, U.S. teachers consider off-the-clock planning and preparation time as uncompensated time. It is just part of their professional commitment. In one district, however, the union stepped in, acknowledging teachers' extra hours by drawing up supplemental contracts for up to 60 hours of paid work during the year. Twenty-four of those hours can be spent at the employee's discretion. The remainder of the time is set aside for specific district initiatives.

German Teachers

The cultural expectation and tradition in Germany is that, to teach well, a teacher must spend as much time planning and preparing as he or she does actually teaching. From an accountability perspective, no one knows whether teachers actually meet this standard. Teachers in Germany mainly prepare their lessons and do other paperwork at home and away from the eyes of administrators, colleagues, parents, and researchers. In a 1985 survey, German teachers reported, on average, spending 24.3 hours per week on planning, preparation, and evaluation of student work—a figure quite close to their usual full-time teaching load of 27 or 28 45-minute periods (Habler & Kunz, 1985).

In this section, we report what teachers in Germany told interviewers about the nature and scheduling of their planning and preparation activities after the school day ends at approximately 1:00 p.m. The sample of teachers is very limited and there is great danger in overgeneralizing from these data. As the coordinator of data collection in Germany noted:

> The big problem with asking [German] teachers about how much time they spend working at home is that they almost always respond with "it depends." Then they describe some factors that influence how much time they spend and estimate an average amount of time per day. This may or may not bear much relationship to how another teacher estimates time.

She goes on to note that "The most important point to be learned from German teachers in terms of prep time is that they don't categorize it by number of minutes per day. Rather, they think in terms of things that have to be done and goals that have to be met by a certain deadline." For example, one teacher interviewed talked about the intensity of her off-the-clock time during the preparation of report cards, but she was hard pressed to estimate how much time she spends on this activity. The task needs to be completed between Christmas and February, and over that period she paces herself to ensure that she finishes the work on time.

Off-the-Clock Planning and Preparation Time in Germany

"On average, I prepare for two hours each day. On the weekends, I also work for at least two hours at the school preparing the weekly plan and looking at students' work."

"When I am planning a new unit, it may take me a whole weekend. Usually, I prepare for six hours on Saturday and about four hours during the week."

"After school, I clean up until 2:00. Then I go home and relax until 5:00 or so. I spend three or four hours in the evening on preparation and evaluation of student work. I have to say that I am really constantly thinking about school, about what I'll do for this and for that."

"I always feel under time pressure. When I get home from work, I eat something quickly, then I rest a little, then I start working again. . . .Right now, the transfer report cards for [the next level of schooling for fourth graders] are the thing to be done. I'm tied to the due date for those."

As in the United States, the amount of time that German teachers devote to planning and preparing lessons often depends on their experience. At one school in the Munich area, a 10-year veteran teacher said, "I don't have to spend as much time preparing for class anymore since I have lessons already prepared." A colleague, in her first year of full-time teaching, offered the counterpoint: "I spend at least four hours per day and at least one more day on the weekend." The principal at this school estimated that most teachers spend about three hours per day in planning and preparation, although that may be an overestimate based on her own experience of juggling teaching and administrative work. Another principal made the same estimate but added:

> Teachers are responsible for themselves. They have to find what fits best for them, how they can work the best, how they can finish the work in the class the best, and how they can best stay healthy. We leave it up to each individual, and in that sense, we emphasize pedagogical freedom—that is, we want to refrain from telling teachers what to do as much as possible.

Some teachers in Germany indicated that they do some long-range planning and preparation during vacations, just as many U.S. teachers do.

Japanese Teachers

Japanese teachers are theoretically on-the-clock at all times. To some of the teachers interviewed, this is a burdensome and anachronistic conception of teaching, but one that they seem resigned to. For the purposes of this analysis, however, the hours that teachers work beyond those when they must physically be in the school building are off-the-clock and at the individual teacher's discretion. At most of the Japanese schools in this study, these hours end at 5:00 or 5:30 p.m. on weekdays and at around noon on the two Saturdays a month when there are morning classes.

After school planning and preparation in Japan most often takes place in the large teachers' room. As in the other two countries, however, the length of time that teachers choose to remain at school to prepare for their classes depends on their personal situation and quite often on the extracurricular responsibilities that they take on. For example, one teacher who met with interviewers was in charge of his school's physical education day festival. Much of his on-the-clock planning time was taken up with activities associated with this event, as well as taking care of the school swimming pool. Consequently, he reported spending about 90 minutes every evening at home working on lessons and grading papers. Sometimes, he said, he falls asleep at his computer.

Off-the-Clock Planning and Preparation Time in Japan

"As long as you arrive by 8:30, you are not late, [but] I come in early to do work, as early as 7:30, before the students arrive. This work is not paid. . . I usually go home late. Sometimes I will work at night or get up and work at 4:00 or 4:30 a.m."

"I like to work after hours because it is the only time that I can use the computer and Xerox machine for as long as I want."

"We must often finish our preparation after 5:00 p.m. or at home because of all the meetings."

"I work as many as three hours at home, making worksheets and grading students' tests and other work such as compositions and journals. In addition, this might not be considered "work," but I also read educational-related books to find some ideas that I can incorporate into my classroom."

Some differences appear among the Japanese schools in terms of work cultures. At one school in Hiroshima, for example, teachers tend to stay past the official closing time of 4:30 p.m., some as late as 6:00 p.m. But unlike teachers in other schools, most teachers here do not take work home. They prefer not to think about school in the evening or on their days off. At another school, teachers routinely stay until 6:00 or 6:30 p.m. and then still take work home. Said one teacher, "I think teaching is a fun job because you're basically dealing with new situations almost every day. But whether I stay in this profession is a question because I'm so terribly busy all the time. I would like some time for myself once in a while."

In one Tokyo school, the interviewer asked four teachers to complete one-page weekly schedules showing how they used their time, 24-hours a day. These are extremely instructive, and future studies of teachers' use of time should replicate this procedure, even for small, non-representative samples of teachers in a school. Their schedules showed, for example, that three of the four teachers did school work on every day of the week and two of four took school-related classes on Saturday afternoons. Going-home times on school days for the four teachers ranged from 6:00 to 8:00 p.m. Two teachers reported that they also worked at home after dinner.

School and District Meetings and Committee Work

Meetings and committee work are facts of life for teachers in all three countries, although the press of these obligations is far greater in the United States and Japan than in Germany. These kinds of activities occur both on- and off-the clock. They appear in this chapter on off-the-clock time because the amount of on-the-clock time that teachers must commit to meetings greatly affects the amount of on-the-clock time that they have for planning and preparing for instruction. This, in turn, affects their off-the-clock time. In Japan, what appears on a paper schedule to be two hours of after school time for grading papers and getting ready for the next day is often taken up by standing committee meetings on, for example, health, sports, or the problem of student bullying. The same is true in the United States, where teachers participate in district curriculum committees or school improvement committees. All of this adds to the pressure on teachers to accomplish a lot in a finite period of time.

U.S. Teachers

Particularly in the innovative U.S. schools, teachers spend a great deal of time attending meetings and serving on committees. The collaboration and collegiality that characterizes many of these schools stems from team meetings, grade-level meetings, subject-area meetings, and whole faculty meetings. In addition, districts are developing content-specific curriculum standards and new assessments, all the while taking to heart research findings that these reforms will not "take" unless teachers are well represented in their development. The upshot is that teachers must represent their schools on more committees than ever before, many of them assuming highly time-consuming leadership responsibilities. These meetings often begin on-the-clock but end off-the-clock, eating into time that they could otherwise devote to preparing instruction. Nevertheless, teachers have accepted them as part of their professional lives. Few question or resent participating in them.

One result of all this committee work is that elementary school teachers are developing expertise in areas that they never anticipated they would need. At the school that eliminated special subject teachers, for example, teachers who are certified in art, music, and physical education serve as resources for their colleagues who are learning to incorporate these subjects into their other instruction. Site-based decision-making, in particular, hones many classroom teachers' leadership skills. Sometimes, however, "empowerment" through leadership seems to overtake rationality:

> We have very good grant writing teams, and they have been successful in getting monies. However, we have gotten so much money, it has become difficult to implement all the programs and spend the money. I think it's getting out of control. For example, we have a technology grant for $65,000, but we can't use it. It got "kicked back." This is highly frustrating. At the same time, we have been encouraged to write more grants.

Meetings and Committee Work in the United States

New York:

The whole school council meets after school every three or four weeks. Teachers are represented on the council. They screen potential candidates for staff positions, but it happens off-the-clock.

South Carolina:

Staff meetings are held after school once a week and usually include nuts-and-bolts business issues—deadlines to remember, general announcements—as well as professional development opportunities. In addition, teachers hold positions in other school-related associations and committees—the PTA board, the school improvement committee, the yearbook committee.

Texas:

Teachers said that, typically, they participate in committee meetings one or two days per week.... They did not consider service on committees as infringement on their planning time because it was apparent that the work of the committees produced dividends for all teachers.

Washington:

Staff meetings occur two to three times a month on Tuesdays from 3:15 p.m. to about 4:30 p.m. Usually, the meeting is organized around one big topic, and most of the meeting is spent on this. . . . All schools in this district have subject area liaisons for language arts, math, science, social studies, and technology. All these groups meet after school once a month.

Japanese Teachers

Among the teachers included in this study, those in Japan clearly bear the greatest burden in terms of meetings and committee work. What is more, the situation appears to be escalating both on- and off-the-clock. One teacher in Japan said:

> In recent years, the number of hours allocated to teaching itself has decreased. However, teachers are much busier now due to increased meetings, training opportunities, and work related to school management. We are required not only to take care of students and school activities but to also improve our skills as teachers. . . In order to have an open relationship with the community, the school must take time to interact with members of the community. If we want to raise awareness among the students about conservation of natural resources, we have to attend meetings on the topic. Teachers' work has definitely increased, and we do not feel that we have enough time to take care of everything.

Interviews in Japanese elementary schools indicate that meetings consume most of teachers' on-the-clock planning time after students are dismissed. One teacher in Sendai enumerated the meetings that he attends:

> Whole school teachers' meeting once a month; grade-level meeting at least once a week for reporting on progress, making teaching materials; meetings of school administration groups; subject area meetings; district meetings.

According to him, there are too many meetings. "[A] factor in this may be that doing things together is the Japanese way. Japanese are not satisfied unless everyone does it together." Another factor, however, is the Japanese tradition of teacher involvement in school-based management, a tradition that quite a few U.S. schools are seeking to emulate.

Teachers in Japan also talked about study group meetings that are not school-specific. It is not unusual for teachers to get together with teachers from other schools for subject area meetings on weekends. According to interviewees, these meetings can sometimes be intellectually stimulating. However, while this is supposed to be a voluntary off-the-clock activity, teachers said that it has "taken on a life of its own," with some principals pressuring teachers to participate so that the school would be represented. This makes the meetings burdensome rather than enjoyable.

German Teachers

German teachers also participate in meetings, but the off-the-clock demands on their time seem fewer than in the United States and Japan. Teachers must attend some meetings by law. These include the teachers conference, the school conference (which takes place once or twice a year), and the monthly all-school meetings (*Gesamtkonferenz*), which parent representatives also attend. The most regular of these, the all-school meeting, generally lasts for one to three hours and has a fairly procedural agenda set by the principal.

At some of the German schools, teachers also voluntarily attend pedagogical meetings. For example, at one school, teachers meet after school in grade-level groups for 45 to 60 minutes once every two weeks to discuss curriculum and instruction. Colleagues who attended continuing education courses may report on what they learned. Some teachers also spoke of regularly scheduled but informal meetings with parents. This kind of professional time contribution seems more common in smaller suburban communities than in large cities.

To some extent, space considerations dictate whether or not German teachers meet in the school after students leave. Teachers working in a newer physical facility spoke of participating in more activities with peers after school than did teachers in older, cramped buildings or in schools that use classrooms for children's after-school programs. Generally speaking, however, teachers leave school early in the afternoon and do not return until the next morning. This stifles any inclination to work collaboratively. As one principal put it:

> Many teachers are so tired at noon that they want to go home, recuperate a little, because we have no room here where teachers could relax or meditate. We don't have anything like that. Then there is the second problem, that I have a lot of part-time teachers, or housewives. . .who work in the household and then prepare for class in the evenings until 10:00 p.m. [So] project groups can't be done. When should I schedule them? Of course, there are some colleagues who are friends, that's another situation. They meet in the afternoon. But to get it organized—that people meet regularly—it's hardly possible for these reasons.

Professional Development

The third type of off-the-clock activity in which teachers regularly participate is professional development or continuing education.[12] Most U.S. and Japanese teachers are required to periodically attend workshops and courses. In the United States, some states require teachers to obtain a master's degree by a certain point in their careers, which is a significant investment in off-the-clock time. In some states in Germany, once teachers meet eligibility requirements for full-time status, participating in continuing education is largely voluntary. In others, they must periodically earn a certain number of credits. In Thuringia, teachers who were originally trained in the former German Democratic Republic must accumulate six credits annually in order to renegotiate their contracts in 1998.

Overall, sizeable numbers of teachers in case study schools in all three countries regularly enroll in workshops and classes to extend their skills. Interestingly, U.S. teachers often attend classes on new technologies, particularly the instructional use of computers. Computers have not made their way into elementary school classrooms in Japan and Germany, however. Most schools that the study team visited in these countries do not have a single computer available with which teachers could prepare worksheets or keep track of student records and grades. Some teachers did report using personal computers at home for these purposes.

U.S. Teachers

Off-the-clock professional development activities are routine and extensive for faculty in several of the innovative U.S. schools. Some teacher-leaders in these schools are as likely to be teaching in-service classes for other teachers as they are to be attending courses or workshops themselves. With the exception of teachers in the Florida school, teachers generally reported that they attend professional development activities after-school, on weekends, and during the summer. Any other arrangement requires money for substitute teachers, something that is in short supply.

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[12] Note that in several of the innovative U.S. schools, teachers were quick to say that they no longer thought of professional development as an "event." Rather, it was a *gestalt* that included all of the ongoing, collaborative work in which they and their colleagues engaged. Acknowledging that, they nevertheless also continue to participate in the kinds of school-based and nonschool-based continuing education activities that we focus on in this section.

Sometimes the school or the district compensates teachers for their off-the-clock time and/or tuition cost. This is most often the case when a class or workshop has direct bearing on a school's restructuring or school improvement plan. Usually though, teachers pay their own way.

Professional Development in the United States

New York:

Every Monday, five teachers spend from 4:00 to 6:00 p.m. at a local graduate school of education participating in a Creative Arts Lab program that their school has adopted. This program is designed to integrate art, music, dance, and drama into classrooms. The training program will extend over a three-year period.

South Carolina:

A teacher reported that "I take anything that's offered through the school or I take classes during the summer that are for advancement or things that I want to be up on." Many of her colleagues made similar statements and gave administrators and teacher-leaders credit for keeping the faculty abreast of professional development opportunities. This school instituted the sale of ice cream in the cafeteria to help finance participation in professional development activities.

Another teacher said, "I just attended a technology conference at the college which [the school] paid for totally. When we got the new Macintoshes, there was a course during the summer that was taught by one of the teachers. I'd say about 80 percent of the staff took that course."

Texas:

Two teachers interviewed were scheduled to fly to another city to present a workshop on how to organize multi-age classrooms. Other teachers at this school were working on an action research project with faculty from a local university.

Washington:

School-based professional development is determined through an annual needs assessment. In addition, the district offers many workshops (particularly in the area of technology) that teachers routinely attend from 4:00 to 7:00 p.m. one day per week. Summer activities for teachers at this school included district workshops and developing curriculum and assessments for the district.

Despite the time demands that out-of-school professional development activities make on teachers' lives, many U.S. teachers spoke of their rejuvenating effects. Sometimes, an administrator asks one or more teachers to attend a particular workshop or class and share what they learn with colleagues. Usually, however, teachers themselves choose to participate for the intellectual stimulation and to expand the body of expertise within the school.

Japanese Teachers

At specific times in their careers (e.g., first year, fifth year, tenth year), Japanese teachers must participate in professional development courses (practical training groups) that their district offers on-the-clock. Beyond that, any courses and workshops they take are voluntary and off-the-clock. A variety of organizations may sponsor these courses, including *Monbusho* and private foundations.

Two strong traditions seem to drive what appears to be Japanese teachers' extensive participation in off-the-clock activities—motivation toward self-improvement and collegiality. Teachers' weekly schedules frequently include Saturday afternoon classes (*kenshuu*) on topics such as calligraphy and Japanese culture (schools also offer *kenshuu* during teachers' planning time). In addition to taking self-improvement classes, groups of teachers sometimes establish informal study and curriculum research groups that meet off-the-clock. For example, one teacher explained, "We get together during the holidays, and we discuss how we read and teach a certain story from a Japanese textbook. We also have interviewed elderly people living in the area to collect and translate folk tales."

German Teachers

In Germany, continuing education classes may take place at school for the whole faculty or at some other locale, where individual teachers may choose to attend. These latter classes may be sponsored by the state institute for continuing education or another provider. The teachers interviewed varied greatly in their participation in voluntary professional development activities, much more so than in the United States or Japan. Some teachers with many years of teaching experience could not remember when they last enrolled in a course or workshop, and they expressed no great need to do so now. Others seek out as many opportunities as they can in their desire for professional growth.

The intensity of these off-the-clock professional development experiences vary as well. A number of teachers mentioned classes that meet only once a month, in contrast to the once a week pattern common in the United States and Japan. In addition, the content of some of the classes German teachers spoke about (e.g., meditation, movement) seem to bear less relationship to students' academic instruction than is typical of professional development in the United States. One possibility is that the purpose of continuing education in Germany is different from that in the other two countries—focused more on the interests of individual teachers and less on developing the program of a school as an organization. Most likely this varies from state to state and even from school to school. Interviewers' notes do, in two cases, refer to fairly regular school-based pedagogical meetings after school and, in one instance, during summer vacation.

Conclusion

Some teachers in the United States feel compelled to defend their work as a true profession and not merely a job. If the definition of a profession includes a work day that is not bounded by official starting and quitting times, then teaching definitely qualifies. Lawyers and doctors bring their work home. So do most teachers. Lawyers and doctors keep current with court decisions and medical research. Many teachers, too, keep current with the research in their field, and do it on their own time. They consider this part of their work.

Teachers often believe that the public impression, particularly in the United States but also to some extent in Germany, is that they have a short work day and a generally "soft" job. Teachers' reports of their days and evenings refute this. There seems to be no question that teachers cannot accomplish all that they need to do in the on-the-clock hours that define their official work days. Even in Japan, where the culture recognizes the dedication and hard work of teachers and honors their contributions to the society, some teachers believe that the population-at-large may underestimate the time commitment that teaching requires.

Chapter 7

Teachers and Students: The Psychology of Time and Space

A persistent theme in U.S. school reform is reducing the ratio of students to classroom teacher. Based on interviews conducted for this study, smaller classes are also high on the wish list of some Japanese teachers (whose classes are, indeed, very large compared to classes in the United States) as well as some German teachers, particularly those in states that are responding to budget shortfalls by increasing class size.[13]

Despite inconclusive research on the relationship between class size and student outcomes, elementary school teachers are unshakable in their belief that they can accomplish much more with 20 students in a class than with 30. Similarly, secondary school teachers assert that they cannot know, care about, and effectively instruct the 180 to 200 students who typically pass through their classrooms each day. The primary education issue in the class size debate is teachers' capacity to diagnose students' strengths and weaknesses and tailor instruction to their individual differences. With 20 or so students in a class, they say, they can manage the task. With 28, 29, 30, or more, it becomes problematic.

There is a clear relationship between the general time crunch in teachers' lives and crowded classrooms. Having more students means more papers to grade, more report cards to complete, more parent conferences, more shoes to tie, and more disputes to settle. The greater the number of students, the less time to hear a child read or to get to the root of a child's misunderstanding of a math concept. The number of students also affects the physical and the psychological dimensions of space, which in turn affects the perception of time. The expression "I need my space" is not just a cliché. Life in a crowd can have negative effects on motivation, morale, and mood.

So teachers are right to be concerned about the interrelationship between time, space, numbers of students for whom they are responsible, and their ability to teach effectively. However, in all three countries, teachers work in a climate of tight or shrinking budgets. The prospects for increasing the number of staff are bleak (although California's new policy of a 20:1 student-teacher ratio in grades 1-3 belies this statement to some extent). This chapter compares and contrasts the staffing parameters in the three countries that are part of this study and explores ideas about the ways in which schools allocate their resources.

The principal findings in this chapter are these:

- The average class size in the Japanese schools in the study (34 students) is considerably higher than in the United States and Germany (both at 24 students).

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[13] A reviewer of an earlier draft of this report who has spent time in Japan noted that teachers there had told her that they valued large classes which created a bustling, noisy environment where students did not feel lonely. This idea did not come up in our interviews.

- U.S. and Japanese schools have, on average, the same number of administrators. Germany appoints teaching principals whose administrative duties are a fraction of their total job.

- U.S. schools have proportionally fewer classroom teachers in relation to all staff than do schools in Germany and Japan.

- Specialist teachers are the crux of creating more on-the-clock planning time for U.S. teachers; however, many specialists in case study schools were somewhat resentful of a role that sometimes seems like babysitting.

Staffing Elementary Schools in the United States, Japan, and Germany

What Matters Most: Teaching for America's Future shows that while the adult-to-student ratio is 1:9 in U.S. schools, the average class is much larger because of the high proportion of administrators and specialized education personnel who have no classroom teaching responsibilities. The Commission recommended reallocating resources to put more education professionals into the classroom. Only one of the innovative schools in this study has adopted a restructuring strategy that eliminates specialist teachers to fund more classroom teaching positions. This school and its new staffing structure is described later in this chapter. First, this chapter tests whether the Commission's assertion about the allocation of personnel is true in the U.S. case study schools, both traditional and innovative, and compares the staffing patterns of U.S. schools with schools in the Japanese and German case studies.

Exhibit 13 provides data about staffing patterns in all of the schools in this study. Note that for these analyses, the number of German schools is larger than in previous chapters. Interviewer reports on two schools in Munich did not provide enough scheduling data to include them in earlier analyses. However, staffing data were complete enough to include here.

The data in Exhibit 13 lead to the following conclusions:

- The enrollment size varies for schools in all three countries. Average enrollment for the groups of schools in the United States and Japan is similar—about 600. On average, the German schools are smaller with about 300 students.

- Both the United States and Japan have a nearly perfect 1:1 match between the number of classes (i.e., first-grade classrooms, second-grade classrooms, etc.) and the number of classroom teachers.[14] In Germany, there are more classroom teachers than classes in most schools. This reflects Germany's higher prevalence of part-time teachers. Having fewer teachers than classrooms in two of the German schools is possible because younger children attend fewer periods per week, and their teachers teach some periods in other classes in order to round out a full-time position.

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[14] In two U.S. schools, the match is not quite perfect. At one, two teachers share one position; at the other, the extra .5 is a half-day kindergarten teacher.

Exhibit 13
Comparison of Staffing Patterns in Study Schools

School	(1) Enrollment	(2) No. of Classes	(3) No. of Classroom Teachers	(4) Average Class Size	(5) No. of Administrative Positions	(6) No. of Other Instructional Positions	(7) No. of Support Staff
U.S. Traditional							
South Carolina	810	33	33	25	2	24.9	4
Texas	669	29	29	23	2	23	6.5
Washington	465	18	18	26	1	14.6	2
U.S. Innovative							
Florida	520	24	24	22	2	27	8+
New York	800	30	30	27	2	36.3	23.1
South Carolina	476	21	21	24	2	15	7.1
Texas	763	34	34	22	2	21.5	8
Washington	389	18	18.5	21	1	12	2.5
Wisconsin	450	16	16.5	28	1	11.6	3
Japan							
Hiroshima-1	650	20	20	33	2	3	8
Hiroshima-2	208	7	7	30	2	1	5
Sendai-1	612	18	18	34	2	4	4
Sendai-2	630	17	17	37	2	7	6
Tokyo-1	851	24	24	31	2	6	16
Tokyo-2	785	21	21	37	2	5	15
Germany							
Frankfurt-1	198	8	8.5	25	.5	3	2.5
Frankfurt-2	429	19	23 (est.)	23	Missing	8 (est.)	Missing
Munich-1	482	18	19.4	30	.6	8	4
Munich-2	320	14	18.5	23	.5	7	3
Munich-3	192	9	10.7	21	.3	6	1.3
Munich-4	311	12	11.5	23	.5	5	2.8
Leipzig-1	188	9	8.5	21	.5	2	2 (est.)
Leipzig-2	346	19	19.2	24	.8	7	2

- Class size is obviously larger in Japan. The average for the U.S. and German schools is 24 (which is also the U.S. national average, according to the National Center for Education Statistics). In the Japanese schools it is 34.

It should be noted that while Japanese teachers in case study schools appear to be resigned to their country's tradition of large classes, they dream of smaller ones. Asked about school reform issues, one teacher responded, "The biggest thing is smaller classes. . .I think that 20 students is ideal. I would like to see that happen." Another said that she would be happy if classes could be reduced from 40 to 30 students.

Meanwhile in Germany, teachers who are experiencing sharp expansions in class size (to over 30) because of budget constraints reported that their jobs are more stressful and difficult than they used to be.

Staffing Patterns

Columns 3, 5, 6, and 7 of Exhibit 13 demonstrate the array of personnel in each country's schools who in some way contribute to their operation. Support staff (Column 7) include office, cafeteria, and custodial personnel as well as supervisory aides for lunch and playground duty. Other instructional positions (Column 6) include special subject teachers and other school professionals, including classroom aides, student teachers, and AmeriCorps volunteers whose duties pertain directly to instruction. Not all of the positions in Column 6 are paid, and not all that are paid come directly out of a school's operating budget (e.g., other agencies pay for mental health workers, social workers, and AmeriCorps volunteers).

Administrative positions. Most U.S. and Japanese elementary schools have a principal and an assistant- or vice-principal. (Japanese schools typically also have a Head Teacher, a semi-administrative position, although this is not true of all the schools in this study.) The two U.S. schools in Washington—both in the same school district—have only a principal. This suggests district policy or tradition. The Wisconsin school that has a single administrator is an alternative school. For some years, a teacher served as part-time assistant-principal when there was funding for that position. The school would like to return to that configuration of administrative staffing.

All Japanese elementary schools in the sample have two administrators. These positions are exclusively reserved for former teachers who are over 50 years of age and approaching the end of their careers. The assistant-principal works long hours. This is the individual who opens up the school in the morning, locks it up at night, and is technically on duty until it is reasonable to expect that all students are safe in their homes.

German elementary school principals also teach—hence the fact that no school has a full-time administrator. The proportion of full-time teaching responsibility to administration depends on the size of the school and on the rules of a particular state. Sometimes administrative positions are divided between two people, the equivalent of a principal and assistant-principal, but both at a small fraction of their total professional time.

Other instructional positions. U.S. schools have far more staff in this category than schools in either of the other two countries. The average number of other instructional positions in the U.S. schools is 21. In Japan, the number is four and in Germany it is six. In Japan and Germany, personnel in this category primarily teach special subjects. Some German schools also have remedial teachers—somewhat equivalent to Title I teachers in the United States—but with lower qualifications and salaries than regular classroom teachers. Remedial teachers often substitute for regular teachers. In addition, schools in Germany may have bilingual or native language teachers for immigrant or refugee students.

Schools in the United States have an array of positions that fall into this category. In addition to music, art, and physical education teachers, they have counselors, special education teachers,[15] Title I and other special program personnel, instructional aides and paraprofessionals, librarians/media specialists, English-as-a-second-language specialists, psychologists, social workers, speech therapists, and other helpers.

Classroom teachers as a proportion of all professional staff. The proportion of classroom teachers to all professional personnel appears in Exhibit 14.

Exhibit 14
Classroom Teachers as a Proportion of All Professional Personnel

Country Groupings	Average Number of Classroom Teachers	Average Number of All Instructional Personnel	Classroom Teachers as an Average Proportion of All Instructional Personnel
U.S. Traditional Schools	27	49	55% Range: 54-55%
U.S. Innovative Schools	24	46	52% Range: 44-59%
Japanese Schools	18	24	75% Range: 65-80%
German Schools	15	21	71% Range: 63-77%

The data from the schools in this study more or less replicate findings from other studies that, in comparison with other countries, classroom teachers are a relatively low proportion of all personnel in American schools (Organization for Economic Cooperation and Development, 1995). Nevertheless, the U.S. schools in this study spent somewhat more of their resources on classroom teachers than the U.S. average of 43.6 percent reported by OECD.

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[15] In Japan and Germany, handicapped students are educated in separate schools. We do not have information on whether or how these countries deal with students with learning disabilities, who are the fastest growing segment of the U.S. educationally handicapped population.

The Role of Other Instructional Staff in Creating Time and Space for Classroom Teachers in the United States

Schools in the United States employ a number of instructional staff whose presence helps give classroom teachers time and space. Specialist teachers most often perform this role, but other positions do this as well.

Specialist Teachers

Generally speaking, U.S. classroom teachers drop students off with a specialist teacher and retrieve them 30 to 35 minutes later. Specialist teachers who were interviewed for this study said that they typically engage in little interaction or curriculum coordination with classroom teachers. If the school is organized around teams, specialists are not usually on them. Consequently, their planning time does not overlap with that of specific classroom teachers. In addition, in many districts, specialist teachers are not full-time at any one school. Rather, they spend some number of days at one school and the rest at another. The result is that specialists have their own grievances about not being connected to the school and its improvement plans. A music teacher in New York said: "I think that teacher specialists, almost to the person, would tell you that a lot of things that take place, the meetings, the desire to create these new programs. . .that we're kind of the machinery that allows those kinds of things to happen to a large degree. . .because we have this eight-period day where we're covering a lot of classes."

This kind of disconnectedness is not inevitable, however. The Wisconsin alternative school followed a very different pattern. In that school, specialists and regular classroom teachers interacted frequently and coordinated their curricula. Classroom teachers looked upon the specialists not as baby sitters but as colleagues who could help enrich students' learning experience. At the time of the site visit, for example, the art teacher, the music teachers, and a fifth and sixth grade teacher from a multi-grade classroom were collaborating to help students write and perform an opera. Flexible scheduling at this school encourages ventures such as these. If the music teacher needs to work with soloists, for example, the classroom teacher keeps the other students rather than sending the whole class at the scheduled music period. Although specialists have their own rooms, they also often go into the classrooms to integrate their programs with the academic program.

Other Positions That Create Time and Space for Teachers

Most of the U.S. schools in this study have non-classroom-based instructional positions for programs such as Title I and rely on a traditional pull-out approach to provide extra help to students with disabilities, poor English language skills, or speech problems. In addition, these schools have other kinds of staff who help teachers and ease the pressures of time and space. The most common of these are aides and paraprofessionals. These positions, which do not generally exist in Japanese or German schools, contribute to what some observers believe is an imbalance between classroom teachers and other staff.

In some visions of school reform, certified teachers would replace aides. However, the tasks that paraprofessionals carry out for teachers—photocopying, arranging field trips, listening to children

read, moving students from place to place in the school—help preserve teachers' planning time and relieve them of tasks that do not need their personal attention. Paraprofessionals also offer another advantage in that they are often members of the community and able to provide important links to parents. Teachers who work closely with aides are reluctant to give them up. Some schools, such as the one in New York, have fully integrated paraprofessionals into their instructional and governance team structures.

In lieu of paraprofessionals and at no cost to the school or district, both of the Texas schools have the half-time services of 15 to 20 AmeriCorps volunteers. These volunteers are college students who earn a small stipend and tuition assistance by working in schools as mentors and general teaching assistants. The school also takes in large numbers of student teachers. Student teachers, however, even when highly responsible and talented, create additional work for teachers. The AmeriCorps volunteers, on the other hand, are there to do exactly what the teachers want, often providing the one-to-one, individualized help that teachers wish they could provide themselves.

While cutting other instructional positions to put more education professionals in classrooms has its attractions, the outcome would vary from one school to the next depending on which positions were eliminated. Next, we tell the story of how one innovative U.S. school came to have a very different staffing pattern, and a weekly schedule that reserved a full half-day for joint planning and preparation.

Restructuring by Restaffing: One School's Story

This innovative school, located in Washington, began its restructuring odyssey several years ago under the leadership of a new principal. Together, the staff decided that the cornerstones of their school improvement plan would be (1) lower class size and (2) increased interactions between teachers and individual students and small groups of students. The class size goal was 18 to 22, down from an average of 30 when restructuring began.

The school's strategy for creating smaller classes eliminated staffing slots for specialist and special education teachers. Teachers in these positions had the option of becoming regular classroom teachers or transferring to other schools in the district. Some selected one option; some the other. Three regular classroom teachers who disagreed with the restructuring plan also left and were replaced by teachers from other schools who wanted to try out the new ideas. Additional staffing changes included cutting a counselor's position from .7 to .5 time and replacing a fully certified school librarian with a library technician. Together, these changes saved the school $35,000. For a time, the staff entertained the idea of replacing the principal with a master teacher but in the end decided that administrative support and advocacy with district officials were indeed important to them.

Exhibit 13 shows 12 "Other Instructional Positions" at this school. In addition to the library technician and the half-time counselor, the school has a full-time English-as-a-second-language teacher who works with students from many language backgrounds, 1.5 Reading Recovery teachers, and 6.5 instructional assistants, all of whom are paid through federal programs. The school also purchases small amounts of time for a speech teacher, a nurse, and instrumental music teachers.

All classrooms in this school are now multi-grade (e.g., K/1, 1/2, 5/6). Approximately 30 special education students are mainstreamed, with two or three in each classroom. All classroom teachers, with some assistance from colleagues who are special education-certified, are responsible for Individualized Education Plans (IEPs). Similarly, all teachers teach art, music, and physical education, with some guidance from their colleagues who are certified or otherwise experienced in those areas. About half the teachers have formed teams and use this structure to give each other some on-the-clock planning time even though on most days they do not have a scheduled planning period.

This school could not have restructured as radically as it has without some contextual support. According to the principal, "the district has moved dramatically to site-based decision making." Decisions that were formerly centralized, such as how to allocate blocks of funds and blocks of staffing time, are now made at the building level. In addition, the district has an unusually cordial relationship with the teachers' union, which supported the school's experiment and even found a contractual mechanism that enabled specialists who were "bumped" to find positions in other schools. The union also approved a waiver allowing teachers to work 30 minutes longer than their contract specifies on the day when they have their long block for planning.

The community, however, was at first skeptical about the new plan. Parents of both special education students and "regular" students feared that full mainstreaming might be detrimental to their children. A few families transferred their "gifted" students to other schools. As part of its compact with the community, the school made good on the promise to offer afternoon programs for students who wished to attend on the early dismissal day. Largely through the entrepreneurship of the principal, about one-fourth of the study body participates in enrichment classes and/or scout troops on Friday afternoon. Initial skepticism has by and large given way to acceptance.

According to school staff, restructuring required relatively few tradeoffs. While everyone admits that the first year was hectic, this was mainly because teachers had not yet figured out the time banking strategy and had almost no planning time. Now, most teachers say that a half hour of duty-free recess on four days is every bit as productive as their former daily half hour when students were with specialist teachers. The half-day of joint planning time on Fridays is popular with everybody. Some teachers, however, while willing to do what they can in curriculum areas formerly taught by specialists, still wonder whether older students are getting the expert instruction they need in art and music. Others think that, given the many needs of the student population, a full-time counselor would be useful.

Could or should this staffing model become widespread in the United States? The National Commission on Teaching and America's Future pointed to several similar examples in its report. Student outcomes should be carefully documented at these beacon sites, and if they show promise, the models should be replicated. Schools can't do this alone, however. They must have at least the acquiescence of the school district and parents, real control over their own resources, and, in many places, the blessing of the teachers' union.

Conclusion

This chapter has detailed staffing patterns that typify the elementary schools in this study. Staffing patterns in U.S. schools are far more diverse, with a considerably smaller proportion of

classroom teachers, than in either Germany or Japan. Some education reformers in the United States believe that changing this pattern by putting more instructional staff in classrooms could make a major contribution to improving student achievement.

Staffing patterns play a large role in giving U.S. teachers on-the-clock planning time during the school day. Specialist teachers are an integral part of this process. As some U.S. schools undertake improvement plans and look for ways to create common planning time for classroom teachers, the solution falls on the backs of the specialist teachers, who are beginning to resent it. Some German and Japanese teachers may also have a small amount of this type of student-free time in the course of a week, but they do not mention it as time that is important to them.

U.S. schools are just beginning to experiment with different kinds of staffing arrangements, including models in which nearly all of the school's professional staff are classroom teachers. The U.S. schools in this study included one school that has operated with such a model for several years. Both staff and parents are, so far, pleased with the results, particularly the smaller classes.

In the United States, reducing class size is important because, no matter what the reform strategy, class size is always first on teachers' minds. Particularly in some high growth and urban communities, larger numbers of students increase time pressures on teachers as well as force everyone to spend daily classroom life in a crowd that is often too big for the space and for achieving the goals of high-quality teaching and learning.

Chapter 8

Summary

This study grew out of the 1993 Goals 2000 Teachers Forum, where teachers voiced dismay about being constantly pressed for time to complete the many tasks associated with their profession. Education reform agendas over the past 10 to 15 years have increased teachers' responsibilities with no concomitant changes in the amount of paid time they have to meet those responsibilities. Often, teachers find themselves caught between the public perception that they work short hours and are only on the job when directly engaged with students and the findings of researchers, evaluators, and commissions, which call for teachers to improve the outcomes of their work by engaging in more professional development. Fast-paced societal changes complicate the situation even more, producing new student needs and, consequently, new demands on teachers. The time is ripe for new ideas, especially ideas that reconfigure existing resources rather than demand new dollars.

The purpose of this study has been to explore ideas in the United States, Germany and Japan that might be useful to restructuring teachers' professional time. This final chapter sums up the findings. In the small number of schools visited for this study, the big cross-national similarities and differences in time allocations are these:

(1) The primary method of obtaining on-the-clock planning time for classroom teachers in the United States is to assign students to specialist teachers (art, music, physical education) for a period of time. Typically, this strategy yields a 40- to 45-minute planning period on four or five days of the week. Teachers usually spend this time doing routine tasks such as contacting parents or grading papers.

(2) Although older elementary school children in Japan and Germany take some classes with specialist teachers, these periods do not occur daily and classroom teachers do not consider them important sources of planning and preparation time.

(3) Other standard periods of required, on-the-clock time without students in all three countries—that is, 15 to 30 minutes before and after school, duty-free recesses, lunch time at most U.S. schools—are useful only for relaxation and routine chores.

(4) The length of the student school day in Japan and Germany is variable over the course of a week. For young students (first and second graders), some days are very short. In the United States, the school day is typically the same length every day of the week for all students.

   (a) A Japanese elementary school teacher's required on-the-clock day is about an hour longer than that of a teacher in the United States. This fact, in combination with the variable student schedule, yields a long block of planning and preparation time after students go home on at

least one day each week. Teachers use the time for both collaborative and individual planning. A few U.S. schools are beginning to use this strategy in order to gain sustained planning time for teachers.

(b) A German elementary school teacher's day is about two hours shorter than that of a teacher in the United States. The cultural expectation in Germany is that teachers will spend an amount of time equal to the number of hours that they actually instruct students on planning, preparation, and other professional tasks. A full-time teacher's salary reflects this expectation and is commensurate with other civil service positions in Germany. Planning and preparation work occurs almost entirely away from the school and by the teacher working alone.

Other Aspects of National Tradition in Allocating Educational Time

Traditions in the United States, Japan, and Germany regarding the amount of time that teachers devote to their profession interact with other national customs pertaining to the use of on-the-clock educational time. These interactions create unique professional cultures. Thus:

- U.S. teachers devote the greatest *amount* of total on-the-clock time to academic instruction, followed by Japanese and then German teachers. However, the *proportion* of on-the-clock time teachers devote to instruction is similar in the United States and Germany. In Japan, teachers spend proportionally less of their total time with students on academic instruction.

- Elementary school teachers in all three countries believe that they are responsible for socializing children as well as for providing academic instruction. Only in Japan, however, do teachers spend significant time interacting with students explicitly for socialization purposes.

- Japanese teachers' on-the-clock planning and preparation time takes place almost exclusively after students have gone home for the day. On one or more days per week, this block of time is substantial. Teachers use it for a variety of collaborative and individual purposes. Japanese teachers in the six schools in this study spent, on average, about one-fourth of their on-the-clock time without students.

- In contrast, U.S. teachers' on-the-clock planning and preparation time mainly takes place while students are in school. Among the traditional schools in this study, the proportion of this kind of planning time varies a good deal. The proportion of planning time in two of the schools is comparable to that in the Japanese schools. However, the time segments that make up the total are more fragmented than in the Japanese schools.

- German teachers have very little on-the-clock time when they are not with students. What they do have consists of a few minutes before and after school and some duty-free recesses. Planning and preparation activities take place mainly in the teacher's

home between the end of the school day at about 1:00 p.m. and whenever the teacher goes to bed.

New Patterns of Time Allocation in Innovative U.S. Schools

U.S. schools that are altering traditional patterns and uses of teachers' on-the-clock, student-free time use one of two strategies:

- Establishing weekly schedules to allow (1) regular or occasional back-to-back planning periods or a back-to-back planning period and lunch hour and (2) planning periods in common with other teachers on a team or at a grade level.

- " Banking" time by lengthening the school day for students and teachers on four days of the week in order to dismiss students early on the fifth day.

Although some of the six innovative U.S. schools received extra resources because of the populations they served, the faculty's grant writing activity, or in one case a school's magnet school status, neither of the two basic strategies necessarily requires additional money or time.

In terms of trade-offs for obtaining what teachers regarded as more functional planning and preparation time, only one school that banked time for teacher planning significantly altered its use of existing resources. Using the autonomy granted all schools in its district under a school-based management plan, this school eliminated special education and specialist teachers to create more slots for regular classroom teachers and thus reduce class size. The new staffing configuration also required teachers to relinquish the daily planning periods that the old specialist model had given them. Instead, they have all of Friday afternoon for planning. To extend this block of time even further, the faculty petitioned the teachers' union to allow them to add 30 minutes to their day on Fridays. They did not receive more pay for this time. The district does, however, reimburse teachers for up to 60 hours annually that they spend on activities such as serving on district committees.

The experiments with planning time configurations in the six innovative U.S. schools emulate one or both of two key characteristics of planning and preparation time in Japanese elementary schools: longer blocks of time for teachers to share with colleagues and/or more total planning time after students leave the building. But this is not an explicit replication of the Japanese "model." Rather, these schools invented their own common-sense and contextually appropriate approaches to using time in ways that were important to them.

The Use of On-the-Clock Planning and Preparation Time

Even when teachers in the U.S. and Japanese schools in this study have sustained blocks of planning and preparation time, there is never enough time for everything that needs to be done. They experience constant tension between the need for concentrated individual work time and the need for collaborative or committee work with colleagues, as evidenced by the following aspects of time use.

- Unless a preparation period is specifically designated for a group meeting, most U.S. teachers work alone or with a neighbor or close colleague.

- Preparation periods that are definitively scheduled as common time for teams or grade-level teachers are generally used thoughtfully and for a specific purpose.

- Creative scheduling to obtain sustained on-the-clock planning time for individuals or groups can work well, but care should be taken that the schedule itself does not become the end rather than a means to improved education for students.

- In the U.S. schools, teachers use banked time after students go home for an explicit collaborative purpose but sometimes adapt it to meet the needs of a given week.

- Some of the U.S. teachers believe that collaboration has taken on a life of its own and is overemphasized at the expense of teachers' need for individual time to prepare for the next day or the next week.

- Group meetings for various purposes—school committees, grade-level meetings, subject area meetings, and so on—dominated sustained blocks of on-the-clock planning time in the Japanese schools. One reason is that teachers in Japan have major responsibilities for school governance.

Based on observations and interviews in the innovative U.S. schools, five dimensions of time use seem to contribute to the creation of a high-functioning learning community:

- School and teacher control over time structures (with, of course, community approval of any innovations that affect the student day and week);

- Flexibility to adapt the use of time, daily if necessary, to meet student need;

- Uses of available time that accommodate the need for both individual and collaborative planning time;

- A culture of professionalism that trusts teachers to make the most effective use of available time; and

- Time use that supports teachers in enhancing student learning and growth.

Although each innovative school has different strategies for how it uses time, these dimensions characterize most of them. Traditional schools in all three countries also embody some of these dimensions, but none has explored the use of planning and preparation time in such a conscious way as these innovative U.S. schools. Some teachers—especially the Japanese teachers—reported that time constraints often make them feel under pressure and dysfunctionally harried. German teachers are less frazzled on a day-by-day basis but feel helpless about a policy environment that is eroding educational time.

The Effect of Class Size and Staffing Patterns on Perceptions About Time

Teachers in all three countries wish for smaller classes. Their reasons have to do with wanting to improve the quality of instructional time and their relationships with students, as well as with the amount of time that it takes to prepare lessons for a large number of students.

- The average class size in the U.S. and German schools in this study is 24. Class size is on the rise in Germany. The average is 34 in the Japanese schools.

- The U.S. teachers regarded 20 students per class as a magic number. Some Japanese teachers reported that they would enjoy that as well, but would be satisfied with only 30 students.

Recent reports and research in the United States, including the report from the National Commission on Teaching and America's Future, criticize schools for having too high a proportion of professional staff compared to regular classroom teachers. The criticism is in part based on norms in other countries.

- In German and Japanese schools in this study, classroom teachers represented 70-75 percent of all instructional staff. In U.S. schools, the proportion was only 50-55 percent.

Critics of the status quo assert that a promising strategy for reducing class size in U.S. schools is to convert specialist, remedial, and special education teachers into full-time classroom teachers. Only one school in this study has taken this approach, and in that specific context, the experiment is working well. Other schools are enhancing instruction in a different way.

- Several of the innovative U.S. schools have extra "hands" in the classroom to help with one-on-one and small group instruction. Paraprofessionals and aides, student teachers, and AmeriCorps workers assist these schools.

Work Off-the-Clock

In all three countries, teachers interviewed regard themselves as professionals, and part of the definition of a professional—as opposed to someone who punches a time clock—is working until the job that needs to be done gets done.

- All the teachers reported sometimes working at home in the evenings and on weekends, although many try not to. Many stay for an hour or more after the end of the official school day and occasionally come to school on weekends or during vacations. Japanese teachers reported that they do not use much of their vacation time.

- According to interviews with teachers in all three countries, the amount of off-the-clock time that teachers put in is related to their years of experience (newer teachers work more) and to their stage of life (teachers who are parents have less time to give).

- Perhaps because they have so much of it, German teachers think about off-the-clock time differently. For them, periodic events in the school year (and even over multiple years, since they often keep the same students for four years) shape the intensity of work at the end of the student school day.

- Particularly in Japan and the United States, and to a lesser extent in Germany, teachers reported that meetings and committee work after school often push preparation for the next day's instruction into the evening hours.

- Participation in professional development events occurs both on-the-clock and off in all three countries. Most teachers talked about some current or recent activity in which they participated. The level of professional development activity appears to be somewhat lower in Germany, where teachers described the activities as not being very intense in terms of content or duration.

A Summary of Observations About Teachers' Professional Time

The goal in this study has been to identify, describe, and reflect on traditional and alternative approaches to the organization and use of teachers' professional time in the United States, Germany, and Japan. Time may be a perennial issue, but perspectives on it vary, and new perspectives may help. The ideas and practices that differ from U.S. elementary school traditions are summarized below:

Japan

- A longer official school day for teachers (eight to nine hours);
- At least one day per week when all students go home early;
- Variability in dismissal time by grade level; and
- A combination of group and individual uses of allocated planning time.

Germany

- A shorter official school day for teachers and students (five to six hours);
- Variability in dismissal time by grade level;
- More part-time teaching positions and, therefore, variability in the end of teachers' day; and
- Substantial paid planning time at the individual teacher's discretion, after-school and at home.

U.S. Innovative Schools

- Creative use of weekly and daily schedules to create longer blocks of on-the-clock planning time and opportunities for teacher collaboration;
- Longer school days for teachers and students on most days to create a block of planning time on one day;
- *Ad hoc* uses of instructional time to meet student needs;
- Deliberate efforts to foster collaborative uses of teachers' on-the-clock planning time; and
- Reduction in class size by assigning more instructional staff to serve as regular classroom teachers.

These ideas are potential building blocks for U.S. schools and school districts to consider when the structure and use of teachers' professional time become prominent items on the educational improvement agenda.

Some Encouragement and Some Cautions

Time—or the lack of it—is often a barrier, an excuse, a scapegoat, and a defense for everyone. It stalks some people relentlessly and drives others crazy. No wonder an advertisement for a health maintenance organization shows a smashed pocket watch with the slogan "To reduce stress, kill time."

Killing time is not much of an option for teachers. They already spend days, nights, and weekends juggling their professional and personal lives. Nevertheless, this study has searched for and documented some ideas about how teachers, both at home and abroad, use professional time in order to suggest new ways of organizing or managing time more productively. At a minimum, the study team wanted to demonstrate that the alternatives to time ruts that schools and teachers fall into do exist. Even if there is never enough time, just wrenching it around a little can be refreshing and energizing, just as teachers at the six innovative U.S. schools said. Further, controlling the allocation of time appears to alleviate some of the stress of never having enough of it.

If schools are intrigued by some of the more radical ideas about time use (such as altering the school week for students to create blocks of planning time for teachers), the entire school community, including parents, needs to be brought into the discussion early. School boards, union officials, and district administrators will also want to study the new concept. Significantly rearranging traditions of time is not a trivial matter. The trade-offs and consequences for teachers, students, and families—most especially the educational consequences for students—should always take precedence. Depending on the strategy under consideration, these trade-offs may include:

- Added costs (not much of a factor in the schools in this study);

- Resources diverted from one purpose to another (e.g., more classroom teachers, fewer or no specialists);
- Displacement of staff members who disagree with proposed changes;
- In a zero sum game where time is finite, loss of some categories of time to obtain more of another kind;
- Where children will be and what they will be doing when teachers have planning time; and
- Impacts on and options for families whose own schedules will be affected by new time structures.

With one exception, none of the changes in time structures in the innovative U.S. schools were made at the expense of students' instructional time. Most U.S. communities would consider that trade-off unacceptable. It is worth noting, however, that Japanese students receive less academic instruction than U.S. students and post better outcomes on international tests such as the Third International Mathematics and Science Study (TIMMS). Japanese teachers, who treat instructional time as sacred and rarely interrupt it, suggested that the *quantity* of instructional time may be less important than the *quality*.

Finally, if teachers in the United States have a desire for more collaborative time, the simplest mechanism for achieving it may be by contractually extending their day by an hour or so without also extending the student day. Many teachers in the U.S. schools visited—both innovative and traditional—already voluntarily remain at school for this length of time and longer. Making a longer teacher school day an official local policy that affects all teachers would obviously have to be negotiated with the union in districts covered by collective bargaining agreements. There would inevitably be salary implications—more required on-the-clock work will have to be reimbursed. An option might be to allow teachers to select either a traditional day on the current pay scale or an extended day for more pay. This would accommodate teachers whose personal responsibilities require them to leave shortly after the student day ends, yet potentially leave a core group of teachers to work on school and/or district improvement issues.

Heeding the concern of many U.S. teachers about the many demands on their time, particularly in an educational context that is currently oriented toward change and reform, this study set out to examine and compare the traditional structure of teacher' work lives and professional use of time in some U.S. elementary schools with the parallel structure a few schools in Germany and Japan and a few selected U.S. schools that have reconfigured the use of time. The study sought to answer two basic questions: (1) Are there ways to reallocate teachers' professional time that might support the ultimate educational reform goal in the United States of improving student outcomes? and (2) What are the policy and resource implications of different approaches to allocating teachers' time?

The answer to the first question is that there clearly are different ways to organize the school day and week. The German and Japanese approaches are both different from each other and from the traditional organization of elementary school time in the United States. U.S. educators and policymakers may resonate more strongly to the ideas from Japan because we are all well aware of how

well Japanese students do in international comparison of achievement. However, one idea in particular from Germany should not be lightly dismissed. Part-time teaching is far more common in Germany than in the United States. It is possible that greater encouragement of shared positions might keep experienced U.S. teachers in the classroom when their own children are young or when burnout threatens. It is certainly an idea worth considering.

Teachers in the innovative U.S. schools in the study did not directly draw their ideas about restructuring time from abroad. Nevertheless, the strategies that they had adopted to make time more productive for teachers and students have much in common with the Japanese way—for example, a variable school week for students and less reliance on specialist teachers' classes as the source of planning time for classroom teachers. These innovative schools had permission to experiment with time, and once started, they continued to find new ways of adjusting time to meet student needs and the goals of the school as a learning organization. Their districts will be closely watching what happens in these schools in terms of students outcomes over several years, but early evidence looks hopeful.

Does the reorganization of teachers' time cost money? The answer here is, "It depends." Several of the U.S. innovative schools reconfigured existing time at no or very little extra cost. One also reduced class size without extra resources. Another bought time for professional development during the school day through successful grant writing. Basically, these schools (and others like them) are examples of the axiom "Where there's a will, there's a way." However, they are idiosyncratic in their local contexts—incubators of ideas from which others may learn. To reach the stage of development that the study team observed, they primarily relied on passion, commitment, and contributed time rather than extra funding. If they become models that policymakers want to replicate, there likely will be costs involved in scaling up the innovations.

BIBLIOGRAPHY

Bailey, Linda. (January 1996). Time use among teachers: Context paper for Germany. Unpublished monograph.

Bundesanstalt fur Arbeit. (1993). Blatter zur berufskunde: Lehrer/Lehrerin an grund hauptschulen (primarstufe und sekundarstufe I). Nurnberg: Author.

Corcoran, Thomas, Shields, Patrick, & Zucker, Andrew. (1998, draft). *...uation of NSF's statewide systemic initiatives program: The SSIs and professional development for teachers.* Menlo Park, CA: SRI International.

Fullan, Michael. (1997). Emotion and hope: Constructive concepts for complex times. In Andy Hargreaves, Editor. (1997). *Rethinking educational change with heart and mind: 1997 ASCD Yearbook.* Alexandria, VA: Association for Supervision and Curriculum Development.

Fullan, Michael. (1993). *Change forces.* London: Falmer Press.

Habler, H. & Kunz, A. (1985). Qualitat der arbeit und verkurzung der arbeitszeit in schule und hochschule. Munchen: IMU-Institue e. V.

Hargreaves, Andrew. (1997). Rethinking educational change: Going deeper and wider in the quest for success. In Andy Hargreaves, Editor. (1997). *Rethinking educational change with heart and mind: 1997 ASCD Yearbook.* Alexandria, VA: Association for Supervision and Curriculum Development.

Henke, Robin, Choy, Susan, et al. (1997). *America's teachers: Profile of a profession, 1993-94.* Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Nathanson, Sara & Waiters, Katrina. (May 1996). Study of teacher time: Context paper for the United States. Unpublished monograph.

National Center for Education Statistics. (1997). *Pursuing excellence: A study of U.S. fourth-grade mathematics and science achievement in international context.* Washington, DC: U.S. Department of Education.

National Center for Education Statistics. (1995). *Digest of education statistics, 1995.* Washington, DC: U.S. Department of Education

National Commission on Teaching and America's Future. (1996). *What matters most: Teaching for America's future.* New York: Author.

National Commission on Time and Learning. (1994). *Prisoners of time.* Washington, DC: Author.

National Education Association. (1997). *Status of the American public school teacher: 1995-96.* Washington, DC: Author.

Reecer, Marcia. (Summer 1995). Talking substance: Common curriculum and time together bring depth and direction to teacher discussions. *American Educator.*

Riley, Richard & Dozier, Therese. (Undated). *Breaking the tyranny of time: Voices from the Goals 2000 teacher forum.* Washington, DC: U.S. Department of Education.

Rudow, B. (1994). Die arbeit des lehrers: Zur psychologie der lehrertatigkeit, lehrerbelastung und lehrergesundheit. Bern: Verlag Hans Huber.

Trelfa, Douglas. (January 1996). Teachers' time use: Context paper for Japan. Unpublished monograph.

Wohlstetter, Priscilla & Mohrman, A. (1996). *Assessment of school-based management.* Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

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